A Continuum of Persistence: Low-income and First-Generation College Students' Perceptions of Critical Factors for Postsecondary Success

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Dedication

This dissertation is dedicated to TRiO students, in particular, the students in this study who took the time to tell me their stories – they truly represent resiliency and are so inspiring.

Abstract

The purpose of this study was to explore similarities and differences among low-income and first-generation (LIFG) students' perceptions of influential academic, psychosocial, and contextual factors that shaped their persistence at different stages at the postsecondary level. This study consisted of 29 LIFG students from a large, urban research university in the Midwest who had not declared a major, had declared a major, and had graduated. Student academic data were analyzed quantitatively to supplement information regarding the postsecondary experience and indicated significant group differences in high school performance, high school ability, and college performance. A qualitative interview approach explored influential psychosocial and contextual factors through data gathered from semi-structured interviews. Several themes emerged: high academic expectations held by students, commitment to college to attain career/degree goals, belief that ability could change with effort, problem-solving skills, and high postsecondary expectations held by both their high school staff and parents. Common factors between groups and factors that were unique to each group also emerged and are discussed. In addition, the importance of understanding students' background, perceptions of low academic self-efficacy and lack of college knowledge permeated throughout the student responses. Nevertheless, LIFG students expressed a willingness to work hard, and often, a need to invest more time and effort than their higher socioeconomic status peers. Merits and limitations, implications for research, practice, and policy and directions for future research are discussed.

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Chapter 1

Introduction

Several critical factors have shaped my journey from high school until now. The college preparatory high school, supportive parents that instilled a strong work ethic, college and graduate school climates with high expectations, and personal attributions have all significantly contributed to my persistence towards a doctorate degree. Specifically, The Blake School, located in Minnesota, is a college preparatory high school where the expectation is that everyone goes to college. In addition to the significant impact of my high school, I would not be where I am today if it were not for my parents. I am a first-generation immigrant from El Salvador. My parents made sacrifices in order for us to have a quality education, but it was not easy for them. Resources and opportunities were not as accessible to them compared to other middle and upper class families that have been in the United States for generations and familiar with the mainstream culture. While working for TRiO programs at the university, I had the opportunity to interact with many students, who come from low-income households and do not have parents with bachelor's degrees (major components to qualify for TRiO programs), have had to overcome many financial, social, and cultural barriers in their journeys to the university. I advised a single mother of two, who rarely slept, but always worked diligently on her academic tasks and was constantly applying for grants and scholarships; she graduated from the university with high honors. Another student, who was full-time and living at home, worked 30 hours a week at a fast food restaurant in order to support her mother and younger sister, while maintaining above average college grades. My motivation is derived from my past experiences of the inaccessibility and the

unavailability of school environments, such as The Blake School, that hold all students to high expectations along with resources for those who struggle. Furthermore, the resiliency of these two TRiO students, along with many others, was very inspiring to me. It also led me to wonder, what factors positively shaped their persistence?

For access into the workforce, a high school diploma is important but not sufficient anymore (Achieve Inc., 2004; Thomasian, Pound, Wilhoit, & Welburn, 2008); approximately 75% of jobs require an associates or a bachelor's degree (Thomasian et al., 2008). Therefore, a postsecondary education is critical in order for high school seniors to develop careers rather than struggle to secure adequate wages (Thomasian et al., 2008). In the research literature, terms such as college and higher education are frequently used but rarely defined. For purposes of this paper, a postsecondary degree covers several pathways for students after high school, such as two- and four-year public or private colleges and universities, and the degrees awarded include certificates, diplomas, and licenses.

Students from different races and ethnicities have alarmed researchers due to their underrepresentation and lack of persistence regarding equitable access to and degrees attained from postsecondary institutions (Walpole, 2003). Low-income and first-generation students (LIFG) are also underrepresented at postsecondary institutions and encompass a large group of students with sociodemographic characteristics that significantly affect their likelihood of persisting (Deli-Amen & DeLuca, 2010; Jehangir, 2010; Pascarella, Pierson, Wolniak, & Terenzini, 2004; Reason, 2009; Walpole, 2003). In addition to coming from low-income homes and with parents that do not hold bachelor's degrees, the LIFG population includes students from different

races/ethnicities, immigrants, English language learners and student parents (Deli-Amen & DeLuca, 2010; Jehangir, 2010). Similarly, socioeconomic status (SES) considers a combination of the parents' income, education, and occupation (American Psychological Association [APA], 2012) and is presented in the literature as an influential factor in the attainment of degrees (Lleras, 2008; Reason, 2009).

It has been argued that access to a quality education is a critical component for closing the economic and social achievement gap (Institute for Higher Education Policy, 2007). Despite recent positive trends in high school graduation and postsecondary enrollment rates, research has revealed unacceptably low persistence rates in the attainment of postsecondary degrees (Aud et al., 2012; Kirst & Bracco, 2004). Who are the students that are not persisting? More important, what is limiting their persistence?

When breaking down high school graduation, postsecondary enrollment, and graduation rates by income, parents' level of education, and race/ethnicity, the question of who is not persisting can be answered. High school students, who are LIFG, drop out at higher rates and attain high school diplomas at lower rates than their middle and upper income peers (Aud et al., 2012). Also alarming are the significantly low postsecondary enrollment and degree attainment rates of LIFG students when compared to students from high-SES families (Aud, KewalRamani, & Frohlich, 2011). Similarly, low persistence rates have been observed for Black, Hispanic/Latino, and American Indian/Alaskan Native students (Aud et al., 2012). Thus, the problem is clear; too many students, who are LIFG and from different races/ethnicities, never attain postsecondary degrees.

The low high school and postsecondary degree attainment rates have drawn the attention of several researchers in the area of student persistence to better understand why

some students persist despite adversity and others do not. Conceptually, Reason (2009) has drawn from several past models to explain how multiple forces functions in many settings to shape student persistence (Astin, 1993; Tinto, 2006-2007). Reason's framework hypothesized that students bring a set of precollege characteristics and experiences that shape their postsecondary experiences through interactions with the institution's organizational context, peer environments, and their own experiences. Student persistence is defined as an individual experience that includes progress towards a goal, which in this case is a postsecondary degree (Reason, 2009). Reason's model, which guided this study, considers the critical role of students' sociodemographic characteristics in relation to persistence; in particular, challenges often emerge as a function of a student's family income and level of parents' education.

Students from LIFG families face significant economic and psychosocial challenges that are different from most middle and upper income students (Bloom, 2007). Economic challenges, such as the cost of tuition, availability of financial aid, and worries related to loan debt have been found to deter students from pursing postsecondary degrees (Bloom, 2007). Moreover, first-generation students have been observed to attend less selective institutions, receive lower grades, spend less time studying, and work more hours than their non-first-generation counterparts (Pascarella et al., 2004; Walpole, 2003). Due to less exposure and access to information about the postsecondary culture, LIFG students tend to encounter several psychosocial barriers (Bloom, 2007). For instance, low levels of academic self-esteem have been demonstrated to significantly impact LIFG students' decisions to eliminate postsecondary plans (Bloom, 2007). In addition, researchers have recognized cultural mismatches between LIFG students and

the postsecondary environment, which has been associated with lower grades and higher mobility rates when compared to peers from high-SES backgrounds (Goldrick-Rab & Pfeffer, 2009; Stephans, Fryber, Markus, Johnson, & Covarrubias, 2012).

Research has explored critical factors that positively shape the student persistence experience (Reason, 2009). Academic factors, such as measurements of academic performance (Khan & Nauta, 2001; Mouw & Khanna, 1993; Vaquera & Maestas, 2009) and academic ability (Sackett, Schmitt, Ellingson, & Kabin, 2001; Sackett, Kuncel, Arneson, Cooper, & Waters, 2009; Zwick & Greif Green, 2007) have been shown to accurately predict student persistence. However, when differences in high school grading systems and SES levels have been considered, measures of academic performance and ability may not accurately predict factors that shape student persistence (Bassiri & Schulz, 2003; Braxton, Hirchy, & McClendon, 2004; Zwick & Greif Green, 2007).

In response to the variability in measures of academic performance and ability, some researchers have shifted their focus toward the impact of psychosocial factors. Researchers have underscored the positive impact of exhibiting future-oriented behaviors (Horstmanshof & Zimitat, 2007) and teaching students to perceive their ability as malleable instead of a fixed entity on persistence (Aronson, Fried, & Good, 2002; Blackwell, Trzesniewski, & Dweck, 2007).

Multiple psychosocial factors, such as academic goals, academic self-efficacy, institutional commitment, academic discipline and commitment to college have been demonstrated to significantly and concurrently impact student persistence (Robbins, Lauver, Le, Davis, & Lagley, 2004; Robbins, Allen, Casillas, Peterson, & Le, 2006). Specifically for LIFG students, high school rank, successful leadership, and demonstrated

community service have been the best predictors of persistence at the postsecondary level (Ting, 1998). In addition, non-cognitive behaviors and cognitive skills have been found to significantly predict postsecondary enrollment when controlling for SES; however, SES has remained to be an influential factor in predicting degree completion (Lleras, 2008).

Any efforts to fully comprehend the multiple influences that impact persistence must also take into account research on contextual factors. The home environment embodies the significant role of parental expectations and involvement on student persistence (Diemer & Li, 2011; McCarron & Inkelas, 2006). For first-generation students, self-perception of good grades has been shown to be more influential than parental involvement on persistence after high school (McCarron & Inkelas, 2006). Within the high school environment, contextual factors such as teacher expectations and assistance with the postsecondary application process have significantly impacted postsecondary enrollment for students from low-SES households (Roderick, Coca, & Nagaoka, 2011).

Once students enter the postsecondary environment, institutional characteristics (i.e., size of institution, college norms, public or private), living situation (on or off campus; Oseguera, 2005-2006), and college staff (Schreiner, Noel, Anderson, & Cantwell, 2011) have been shown to significantly impact students' postsecondary experiences. In addition, the influence of the peer environment has emerged as an influential contextual factor in shaping student persistence. Specifically, researchers have found a link between social integration, institutional commitment, and subsequent student persistence (Braxton, Jones, Hirschy, & Hartley, 2008). Also, involvement in student

groups and organizations has been demonstrated to impact persistence, in particular for first-generation students (Pascarella et al., 2004). In relation to high school and postsecondary environments, supports for students learning have empowered students who face economic and psychosocial barriers in their persistence; effective supports include college readiness programs (Engle, Bermeo, & O'Brien, 2006; Gira, 2008; Watt, Huerta, & Lozano, 2007), first-year seminars (Strumf & Hunt, 1993), career courses (Grier-Reed & Ganuza, 2009), and multicultural learning communities (Jehangir, 2010).

Although there is much research that considers influential factors that shape students' persistence, there are limitations within the literature that may warrant caution. One reason for caution involves the ambiguity regarding sample demographic characteristics. Some researchers either group participants by race/ethnicity or disregard controlling for sociodemographic characteristics such as SES. Conversely, caution needs to be applied when interpreting research in the area of poverty and education; it can perpetuate negative stereotypes by promoting a perception that students who have grown up in poverty have similar experiences, which can lead to the development of generic solutions and/or resources (Datnow, Solorzano, Watford, & Park, 2010). Even so, SES-based inequality pertaining to degree attainment is a significant issue. However, there seems to be limited qualitative data on where LIFG students are coming from and the contexts in which they are making decisions; student voice may add to our understanding of why some students persist despite common barriers and challenges. For these reasons, this study will attempt to capture critical student perceived attributions—reasons for why LIFG students persisted within the postsecondary environment. This exploratory, descriptive study will explore similarities and differences among LIFG students'

academic, psychosocial, and contextual factors that shaped their persistence at different stages at the postsecondary level. Specifically, three groups will be compared: students without declared majors, students with declared majors, and students who have graduated. This study will seek to address the following questions:

1. Are there significant differences in academic factors among the groups?
2. How do perceptions of influential psychosocial factors differ among the groups?
3. How do perceptions of influential contextual factors differ among the groups?
4. What valuable recommendations do students provide for educators, prospective college students, and current college students?

The exploration of influential factors will provide a better understanding of the LIFG student persistence experience. This study could be useful to high school and postsecondary teachers, administrators, faculty, student services providers, and policy makers in forming decisions to best meet the needs of LIFG students. Improving the postsecondary degree attainment for LIFG students is vital to our success as a nation; a postsecondary education is their ticket out of poverty.

Chapter 2

Literature Review

The following literature review is comprised of two parts. Part I provides background information on the definition of postsecondary education and low-income and first-generation (LIFG) students. This section also provides high school graduation, postsecondary enrollment and graduation rates that are broken down by students' household income, their parents' level of education, and race/ethnicity. Then, Part I moves to an exploration of LIFG student persistence by highlighting some important theoretical frameworks and outlining the theoretical underpinnings on student persistence for this study. Guided by Reason's (2009) student persistence conceptual framework, Part II includes research on academic, psychosocial, and contextual factors that shape students' postsecondary experiences.

Part I

Background Information

Providing definitions of key terms is a critical piece of the background information regarding students who are struggling to persist from high school to college. When completion and enrollment rates are reported, one issue is the lack of information regarding the type of postsecondary institution. Another issue is how terms such as *high-risk*, *at-risk*, *minority students*, *underrepresented groups*, and *underserved students* are used interchangeably, along with others, without a breakdown of income and parents' level of education. As a result, postsecondary education and LIFG students are defined below.

Postsecondary institutions. Since the high school diploma is important but not sufficient anymore for access into the workforce (Achieve Inc., 2004; Thomasian et al., 2008), it is essential to clearly define the type of postsecondary institution when providing enrollment and completion rates. There are a variety of options in postsecondary such as: technical, vocational, and proprietary schools that teach specific skills and can take anywhere from one to four years to graduate; these schools award certificates, diplomas and licenses. There are also community and junior colleges that award associate degrees as well as certificates. In addition, there are public (state funded) and private (supported by tuition and donations) colleges and universities. In the research literature, the terms college and higher education are frequently used but rarely defined. Considering that approximately 75% of jobs require an associate's or a bachelor's degree, a postsecondary education is critical in order for high school seniors to develop careers rather than struggle to secure adequate wages (Thomasian et al., 2008). For purposes of this paper, a postsecondary education does not relate solely to four-year liberal arts degrees. Rather, a postsecondary degree encompasses several pathways for students after high school; all of these paths need to be considered when addressing and providing background information on student persistence.

Description of low-income and first-generation students. Students from different races/ethnicities have alarmed researchers due to their underrepresentation and lack of persistence regarding equitable access to and degrees attained from postsecondary institutions (Walpole, 2003). Walpole (2003) stated that "low SES students are similarly underrepresented, and comparable equity issues exist for this group of students" (p. 46).

Low-income is determined by government poverty guidelines, is annually defined and published by the Department of Education. For instance, a student would be classified as low-income if he came from a family of three whose taxable income for the preceding year fell below $29,295 (U.S. Department of Education, 2013). First-generation, in reference to college students, is defined as a student whose parents have not earned a bachelor's degree; they tend to be students of color, immigrants or English language learners, or student parents (Deli-Amen & DeLuca, 2010).

In response to this, the LIFG term will be utilized because it encompasses a larger group of students in our society with certain sociodemographic characteristics and experiences that significantly affect their likelihood of persisting (Pascarella et al., 2004; Reason, 2009; Walpole, 2003). Similarly, SES is commonly used in the literature and defined as social standing or class of an individual, family, or group; it is regularly determined by a combination of income, education, and occupation (APA, 2012). In addition to LIFG students, research that addresses the impact of SES is also critical.

Persistence rates. Of the 3.2 million youth that graduated high school in 2012, approximately 2.1 million (66.2%) enrolled at two- and four-year postsecondary institutions (Bureau of Labor Statistics, 2013). At no other time in history have so many students decided to pursue postsecondary education (Aud et al., 2012). Although the data appear promising, when broken down by income, parents' level of education, and race/ethnicity, the percentages of students persisting into postsecondary are alarmingly low (See Table 1).

High school students from low-income households had the highest dropout rate (9.5%), with the exception of Hispanics/Latinos (15%) and attained high school diplomas

at the lowest rate of (63.7%; Aud et al., 2012). Also alarming was the significantly low postsecondary enrollment rate of first-generation college students (53%; students who have parents with a high school diploma or less); revealing a discrepancy of 29 percentage points when compared to students whose parents had bachelor's degrees or higher (82%; Aud et al., 2011). Moreover, lower rates of degree attainment at two-year institutions than four-year were demonstrated across all demographic groups.

Table 1

Educational Attainment by Income, Parents' Level of Education, and Race/Ethnicity

Student characteristics	High school		Post-sec enrollment	Two- and four-year		
	Dropout[a]	Graduation[b]		Expectation to graduate[a]	No degree[c]	Certificates, AA, and BA[c]
Total	7.4	78.2	68.1[a]	22.6, 59.7	46.4, 23.6	35.1, 64.2
Income distribution						
Low-Income	9.5	63.7	50.6[a]		47.4, 31.4	34.6, 52.7
Middle-Income	4.3	86.7	66.8[a]		36.7, 20.1	41.3, 67.1
High-Income	1.1	91.1	82.2[a]		34.4, 11.4	45, 80
Parents with high school diploma or less			53[d]	25.4, 46	50.9, 34.7	32, 49.9
Parents with bachelor's or higher			82[d]	22, 65.6	40, 18.9	39.4, 70.1
Race/Ethnicity distribution						
American Indian/Alaskan Native	4	69.1	45[a]		39.6, 29.3	32.1, 51.5
Asian-Pacific Islander	4	93.5	88.4[a]		32.7, 15.2	38.3, 72.8
Black	8	66.1	65.8[a]	19.8, 59.5	50, 19.6	28.1, 46.9
Hispanic/ Latino	15	71.4	59.7[a]	27.1, 50.4	52.9, 32.5	28.3, 48.8
White	5	83	70.5[a]	21.6, 61.4	44.9, 21.4	38.9, 68.9

Note. High school dropout rates = percentages of 16- to 24-year-olds who did not graduate high school and did not earn a GED Fall 2010; High school graduation rates = percentages of students who graduated in 2010 after four years of starting 9th grade; College expectation to graduate = percentages of 12th graders who planned to graduate from a four-year college in 2009-2010; postsec enrollment = percentage of high school completers that enrolled in two- or four-year colleges in Fall 2010 immediately after high school; No degree = students who started two-and four-year postsecondary institutions Fall 2003 and did not earn a degree (did not re-enroll) or earned a degree in Spring 2009.
[a]Retrieved from Aud et al. (2012). [b]Retrieved from Stillwell and Stable (2013). [c]Retrieved from NCES (2011). [d]Aud et al. (2012) did not provide rates of immediate postsecondary enrollment by level of parental education for Fall 2010, therefore, data from Aud et al. (2011) were used for the immediate enrollment at two- or four-year postsecondary institutions Fall 2006.

Similarly, disparities were evident when examined by race/ethnicity. Asian-Pacific Islander and White students graduated high school (93.5%, 83%), enrolled in college (88.4%, 70.5), and attained postsecondary degrees at higher rates than all other races/ethnicities at two- and four-year institutions (38.3%, 72.8%; 38.9%, 68.9%).

Students' educational expectations were higher than the actual attainment of degrees in almost all areas (Table 1). In particular, many students from low SES backgrounds demonstrated aspirations for degrees from two- and four-year postsecondary institutions (25.4%, 46%), but few actually attained them (32%, 49.9% student with parents that have high school diploma or less; 34.6%, 52.7% students from low-income homes). These rates were in alignment with findings from a study that examined degree attainment of a subsample of low-SES students from the National Educational Longitudinal Study 1988-2000 (NELS:88/2000). In 1990, 40.2% of low-SES high school sophomores aspired to earn bachelor's degrees, but in 2000, only 32.4% had done so (McCarron & Inkelas, 2006). These data underscore the importance of recognizing the sociodemographic make-up of students that enroll, attend, and graduate from postsecondary institutions. The problem is clear; too many students from low-income households, whose parents have a high school diploma or less and from underrepresented groups, never attain postsecondary degrees. What is impeding their persistence?

Low-Income and First-Generation Student Persistence

Students from low-income homes and with parents that do not hold bachelor's degrees are underrepresented in postsecondary education and are, consequently, educationally disadvantaged (Table 1). Often viewed as a "function of the degree of fit

between student and institution" (Vaquera & Maestas, 2009, p. 426), researchers have offered theories that consider the impact of numerous factors on persistence (Table 2).

Understanding student persistence. Though different frameworks exist, there appears to be a common understanding – that multiple forces function in many settings to influence learning and student persistence. Specifically, students come to college with a set of experiences, personal attributes, and characteristics that influence their persistence. Rather than just focusing on students' postsecondary enrollment, these frameworks concentrate on a continuum of student persistence. However, the differences among the models lie within the definitions of and interplay between the influential forces.

One factor that varies across the frameworks is the degree of influence that specific factors have on persistence. Conceptually, the input-environment-outcome model provides a basic foundation for understanding how the college environment impacts students (Astin, 1993), yet Pascarella, Salisbury, & Blaich (2011) placed more weight on students' exposure to effective postsecondary instruction. In addition, Pascarella et al. (2011) considered not only measures of academic and social integration (Tinto, 1993, 2006-2007), but also work obligation and place of residence to shape academic and social integration. The student-attrition model addresses the persistence and attrition of nontraditional students regarding the influence of part-time enrollment, living at home, and being a single parent (Bean & Metzner, 1985). However, this model was developed over 20 years ago and needs to be interpreted with caution due changes in the demographic make-up of current nontraditional students. Nevertheless, a majority of studies continue to concentrate on intact cohorts of full-time students living on campus and who do not work or have family responsibilities (Pascarella & Terenzini, 1998).

Table 2

Theoretical Frameworks of Student Persistence

Researcher(s)	Theoretical framework
Tinto (1993, 2006-2007)	The model considers student attributes (family background, skills/ability, and type of high school), intentions about college, goals, and commitments before entering postsecondary. Once in college, the student experiences *academic integration* (academic performance) and *social integration* (extracurricular activities, peers and interactions with faculty members). Positive and successful interactions in the postsecondary environment should increase the student's intentions, goals, and commitments; as well as persistence.
Bean and Metzner (1985)	*Student attrition model:* indicates that a student's intent to persist or leave are mainly based on four sets of variables: academic performance, intent to leave (influenced by psychological and academic outcomes), background variables (e.g., high school performance and educational goals), and environmental variables (e.g., child care, adjusting work schedule, paying for college). When academic and environmental variables are good they are helpful for persistence. When academic variables are good but not environmental ones, students dropout. When environmental support is strong but academic variables are poor – students remain enrolled.
Astin (1993)	*Input-environment-outcome model*: this model views that each student brings with them their individual experiences and background (input), they obtain and participate in experiences (environment), and from these experiences a number of outcomes occur; one of those outcomes is a degree.
Pascarella, Salisbury, and Blaich (2011)	Student persistence is a function of exposure to effective classroom instruction, student precollege characteristics, the type of institution attended, and other college experiences (work responsibilities during college, and involvement in co-curricular activities). All of these factors shape social and academic integration, having a positive effect on the probability of students' enrolling for a second year of college.
Reason (2009)	The framework theorized that students come to college with precollege characteristics and experiences that prepare and dispose them for learning opportunities. These precollege characteristics and experiences (i.e., sociodemographic traits, academic preparation and performance, and student dispositions) shape students' college experiences through their interactions with the institution's internal organizational context, the peer environment, and students' individual experiences (socialization agents such as peers and faculty members).

Some theoretical frameworks were shaped using existing theories. Specifically, Reason (2009) drew from the input-environment-outcome model and Tinto's (1993, 2006-2007) research to provide a current framework that addressed the vagueness of what factors constitute outcomes of student persistence and influences of sociodemographic traits.

In addition to the term persistence, the terms retention and attrition have been used interchangeably, along with others, to depict students' high school completion, transition to and experiences in higher education (Reason, 2009). According to Reason (2009), retention has been defined as an "organizational phenomenon—and universities *retain* students"; in contrast, he defined persistence as an "individual phenomenon—students *persist* to a goal" (p.660). Similarly, Adelman (2006) has articulated that:

> In the rhetoric of retention, students are passive: Something is done to them, and that 'something' assumes a deficit model. Under the rhetoric of 'persistence' they are actors shaping their fate, with a model of success in mind. Wouldn't anyone rather have success? (p. 107)

Moreover, when the term attrition is used, researchers focus on explanations for why students leave college; thus, concentrating on negativity and blame (Adelman, 2006). Reason (2009) moved away from a deficit model by defining persistence to include progress towards a goal. Also, Reason focused on a continuum of persistence instead of "within-year" retention, which centers on one semester to the next, and "between-year" retention, which focuses on predictors of student retention (p. 660).

Reason (2009) and Tinto (2006) have also underscored the heterogeneity within typical groupings of race/ethnicity in studies, which make findings difficult to interpret. Therefore, Reason's model (2009) considered influential differences in students'

sociodemographic traits, such as parents' level of education and income as they enter and navigate through higher education. As a result, Reason's (2009) comprehensive model of student persistence guided this study (see Figure 1), with a few changes in terminology. The term *precollege characteristic* was changed to pre-postsecondary factors in order to avoid misunderstandings regarding a focus only on four-year colleges. Also, academic, psychosocial, and contextual factors replaced *academic preparation*, *academic performance* and *student dispositions* based on a review of student persistence research, which will be discussed in Part II (Reason, 2009).

Figure 1. Comprehensive Model of Influences on Persistence

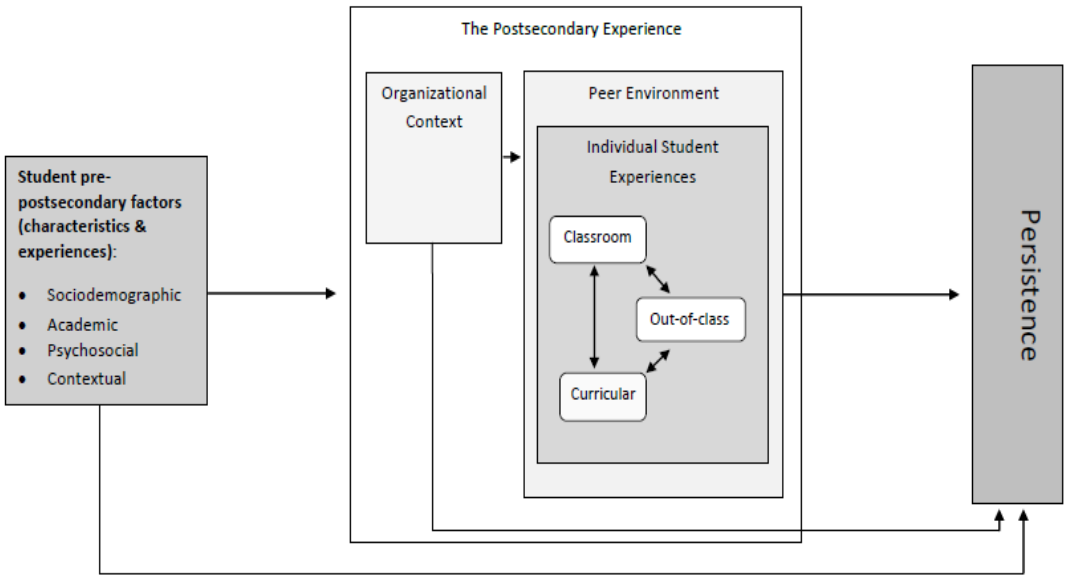

Figure 1. Adapted from Reason (2009). The model indicates that students enter higher education with certain factors that shape their postsecondary experiences as they navigate and interact with institutional and peer environments (involvement with, connections), as well as with their own experiences.

Pre-postsecondary factors shape students' postsecondary experience through their interactions with the institution's organizational context, the peer environment, and their

own experiences (Figure 1). Reason (2009) defines the organizational context as the size of the institution, sources of support (public vs. private), admissions selectivity, and institutional culture. The peer environment is comprised of the institution's racial and academic climates, which either strengthen or weaken a students' sense of belonging (Reason, 2009). The final set of interactions include the interplay of individual classroom (e.g., types of pedagogies), out-of-class (e.g., extracurricular activities, student living situation, time spent studying, family and employment obligations, family support), and curricular (e.g., choice of academic major, exposure to experiences within major, relationships with faculty) experiences (Reason, 2009). Therefore, students' individual experiences, which Reason (2009) states as the most immediate set of influences, are just as critical as the institution's organizational context and peer environment to student persistence.

Challenges of low-income and first-generation student persistence. When faced with the notion of higher education, most high school students assess the options and risks associated with applying, attending, and eventually graduating (Goldrick-Rab & Pfeffer, 2009). For instance, many students from low-income neighborhoods have less access to high-quality and resourceful K-12 schools (Datnow et al., 2010). Consequently, the path that is carried out may vary for different groups of students based on their SES. Bloom (2007) has argued that students from poor and working-class families face significant risks and challenges that are different from most middle and upper income students, both economic and psychosocial.

Economic challenges. When high school students from low-income families begin to think about higher education, money has been identified as a major concern. In

a study that followed a small group of high school seniors as they prepared for higher education, Bloom (2007) found that many students from low-income households had economical trepidations about applying to college. The researcher conducted observations, focus groups, and individual interviews on participants from three urban high schools (80% of students qualified for free and reduced lunch and over 90% were Black and Latino at two schools, and the third school had an even distribution of the U.S. student population; Bloom, 2007). Participant concerns included tuition costs, availability of financial aid, accumulation of debt and justification of it after college; these concerns deterred many participants from pursuing postsecondary degrees (Bloom, 2007). Despite the informative findings of this study, information on within-group differences, in particular SES was not provided.

When students persist to postsecondary institutions, economical challenges do not disappear (Bloom, 2006). Research that has analyzed college student databases has suggested that students from low-SES backgrounds spend more time working outside jobs out of necessity when compared to students from high-SES backgrounds (Pascarella et al., 2004; Walpole, 2003). After controlling for grades, academic skills and race/ethnicity, first-generation college students, on average, were more than a quarter of a standard deviation less likely to attend selective institutions than students whose parents held bachelor's degrees (Pascarella et al., 2004). Also, first-generation students had significantly lower grades after the third year of college when compared to students with parents who held bachelor's degrees ($\beta = 0.07$), even when precollege cognitive development (i.e., writing skills, science reasoning, reading comprehension and critical thinking skills), high school grades, and academic motivation were controlled (Pascarella

et al., 2004). Similarly, participants from low-SES backgrounds held lower grade point averages (GPA; 21% of low-SES and 40% of high-SES reported a B+ or higher), spent less time studying and worked 16 or more hours (52% of low-SES vs. 37% of high-SES) than their high-SES peers (Walpole, 2003).

Psychosocial challenges. The challenges for LIFG students are not solely economic, but are social and psychological as well (Bloom, 2007). Prior to postsecondary education, students from low-income families have less exposure and access to information about the postsecondary education culture, and they hold fears of the unknown and whether or not they will succeed (Bloom, 2007).

Based on qualitative findings, the lack of social-capital and the challenges of preparing for college negatively shaped students' perceptions, decision-making, and experiences during their senior year of high school (Bloom, 2007). In particular, participants expressed fears of the unknown and whether they would succeed at postsecondary institutions, which impacted their self-esteem and caused some to eliminate their college plans (Bloom, 2007). With respect to parental influences, some participants reported pressure from their parents to achieve an academic goal that might be too difficult for them (Bloom, 2007). Other participants reported feelings associated with anxiety due to their parents' uncertainties about sending them to an unknown college culture (Bloom, 2007).

Researchers have recognized the need to address cultural obstacles that contribute to the social class achievement gap within postsecondary institutions. A series of studies looked at cultural norms that students from low-income families bring to postsecondary institutions (i.e., the need to be part of a community) and how these norms interact with

institutionalized college norms (i.e., paving ones' path; Stephans et al., 2012). Survey data revealed that administrators, from the top universities and liberal arts colleges, characterized their institutional culture as more independent (72%; i.e., learn to solve problems on one's own and develop personal opinions) than interdependent (20%; i.e., learn to be a team player, appreciating the opinion of others). However, regression analyses showed that first-generation students were less likely to exhibit motives of independence ($\beta = .13$), but were more likely to transition to university environments with independent cultures ($\beta = -.17$) that were a mismatch with their motives. Though insignificant, the cultural mismatch was associated with lower first and second year grades ($\beta = -.11, -.07$) and higher grades were associated when there was a greater focus on independence ($\beta = .04, .05$); even after controlling for race/ethnicity and SAT scores.

Another psychosocial challenge that can be attributed to perceptions of a cultural mismatch is students' mobility rate at the postsecondary level. In a sample of 4,716 college students who were followed for 8 years after high school, significant differences were apparent in the degree completion rates between students who never changed colleges (79%) and students who reverse transferred (i.e., left a four-year college to a two-year college and did not return to four-year college for bachelor's degree; 22%; Goldrick-Rab & Pfeffer, 2009). More important, an interaction was discovered between parents' level of education and mobility, suggesting that first-generation participants were more likely to reverse transfer due to challenges in the first year of college ($\beta = .39$); even when participants were academically and financially prepared (Goldrick-Rab & Pfeffer, 2009).

Summary of student persistence. To address the alarmingly low persistence rates from high school to postsecondary education and understand the student persistence experience, theoretical frameworks exist that hypothesize multiple influential forces that function in many settings (Astin, 1993; Bean & Metzner, 1985; Pascarella et al., 2011; Reason, 2009; Tinto, 1993, 2006-2007). Guided by Reason's (2009) student persistence model, students enter postsecondary with a set of pre-postsecondary characteristics and experiences (sociodemographic, academic, psychosocial, and contextual factors) that shape their experiences as they navigate and interact with institutional and peer environments, as well as their own. For these reasons, experiences in postsecondary education tend to be different for LIFG students than those from higher incomes and many face economic and psychosocial challenges to persistence (Bloom, 2007; Goldrick-Rab & Pfeffer, 2009; Pascarella et al., 2004; Stephans et al., 2012). Although the literature on challenges exists, limited research was found that provided empirical evidence of challenges for LIFG students; much research consisted of speculations and/or opinions. Moreover, caution needs to be applied when interpreting research in the area of poverty and education; it can perpetuate negative stereotypes by promoting a perception that students who have grown up in poverty have similar experiences, which can lead to the development of generic solutions and/or resources (Datnow et al., 2010). As a result, more research is needed to understand the factors that shape student persistence, especially for the LIFG population because too many never attain postsecondary degrees.

PART II

Many studies have explored academic, psychosocial, and contextual factors that shape students' postsecondary experiences (Reason, 2009). Academic factors depict the

influence of measures of academic ability and performance on persistence. In addition, much research on psychosocial factors has explored both single factors, such as students' future-orientation, aspirations and conception of ability, and multiple concurrent factors as significant predictors of student persistence. Contextual factors, also influential in persistence, include students' home, high school, postsecondary, and peer environments as well as supports for their learning at the high school and postsecondary level.

Academic Factors

Measures of academic performance and academic ability, often identified as traditional predictors, have been demonstrated to be strong pre-postsecondary predictors of student persistence. Measures of academic performance include cumulative high school and postsecondary GPA, as well as high school rank. Measures of academic ability include standardized assessments, such as SAT and ACT. Although both academic measures have been identified with much precision in their predictability of success in higher education, these measures have been shown to inaccurately predict the persistence of students when SES has been considered.

Measures of academic performance. Within the research, the majority of studies have focused on traditional predictors of persistence. High school grades and class rank have consistently emerged as strong predictors of first semester college GPA, cumulative college GPA, and graduation (Blinne & Johnson, 1998; Bontekoe, 1992; Khan & Nauta, 2001; Mouw & Khanna, 1993). When background and social class have been controlled, college cumulative grade point average has had the largest effect on predicting persistence to the third and fifth semester of college for 1,762 White and Hispanic/Latino students (Vaquera & Maestas, 2009). Although this study focused on

race/ethnic differences, SES was taken into consideration, results showed that being a first-generation Hispanic/Latino college student decreased the odds of being enrolled in the third semester by a factor of .48 and the fifth semester by a factor of .58 (Vaquera & Maestas, 2009). Thus, academic achievement was not as adequate of a predictor for Latinos who were first-generation college students as SES; students with limited college knowledge or support systems at home tend to face more challenges adjusting to and staying in college (Vaquera & Maestas, 2009).

Measures of academic ability. With a high degree of accuracy, research has demonstrated that academic ability measures like the SAT and ACT significantly predict students' success at postsecondary institutions (Pike & Saupe, 2002; Sackett et al., 2001; Sackett et al., 2009). Standardized tests have been well-developed to accurately identify students' existing degree of knowledge, skill, ability, and/or achievement (Sackett et al., 2001). However, in a study that examined College Board data sets containing information related to SAT scores, GPA, and SES, SES was significantly related to SAT scores (r = .42) and minimally correlated with high school grades (r = .22; Sackett et al., 2009).

In addition, researchers have called attention to the differences among high schools regarding grading criteria (Bassiri & Schulz, 2003; Zwick & Greif Green, 2007). Similar to Sackett et al. (2009) and also based on a large national sample, Zwick & Greif Green (2007) found stronger correlations between SES and SAT scores when variations in high school grading standards were not considered. However, when grading differences were controlled (comparing high schools with similar GPA criteria and SES levels) across high schools, class rank and high school grades were shown to have

stronger correlations with SES than SAT scores (Zwick & Greif Green, 2007). Due to differences in high school grading systems and SES, these findings indicate that high school GPA may not always accurately predict postsecondary success as SAT scores, which can be assumed to have the same meaning across schools (Zwick & Greif Green, 2007)

Overall, research on traditional predictors, such as GPA, class rank, and standardized test scores has consistently demonstrated their predictive power on postsecondary success. Due to the degree of accuracy and quality of college standardized tests, SAT/ACT scores are heavily weighted in admission acceptance decisions, in conjunction with high school GPA and class rank (Conley, 2007). On the other hand, the role of socioeconomic factors has been shown to be related to persistence, thus, traditional measures may not accurately or entirely predict the unique factors that shape the LIFG student persistence experience (Braxton et al., 2004; Walpole, 2003). As a result, academic factors are significant but not sufficient to entirely understand the postsecondary persistence experience for the LIFG population.

Psychosocial Factors

In addition to academic factors, students should develop sets of behaviors, attributes, and strategies that are critical to their persistence, but these characteristics may not necessarily be reflected in their ACT/SAT scores or high school GPA (Farrington et al., 2012). Therefore, recent research on student persistence has shifted the focus towards psychosocial factors. Researchers have studied the influence of psychosocial factors on persistence, through examinations of specific factors, such as a future-orientation and students' perceptions of ability, and multiple concurrent factors (Reason, 2009). The

future orientation concept has explored students' motivation towards the attainment of goals and has encompassed thoughts, dreams, and future expectations that influence persistence (Aspinwall, 2006; Nurmi, 1991). In addition, there have been studies on students' conception of their ability and how teaching students that their ability is malleable instead of a fixed entity, has influenced students' academic outcomes (Aronson et al., 2002; Blackwell et al., 2007; Dweck, 2007).

Future orientation/aspirations. When students possess a future orientation, they tend to hope for better possibilities and this student attribute has set the stage for behaviors that increase the attainment of academic goals (Nurmi, 1991). Based on a sample of 347 students who persisted to the enrollment of a third semester of college, students who reported a future orientation on questionnaires, had higher levels of academic application (22% of variance explained), academic orientation (9.5% of variance explained), and productive educational behaviors (25% of variance explained; Horstmanshof & Zimitat, 2007). In other words, students who held a future academic orientation worked consistently during the school year (academic application), expressed alignment with university goals (academic orientation), and dedicated several hours for class preparation (educational behaviors; Horstmanshof & Zimitat, 2007). Although these findings are important to consider, the researchers did not provide information regarding sample demographic characteristics.

When SES has been considered, students from low-SES households have demonstrated to hold similar future aspirations as their high-income counterparts. Based on a small sample of students from low-income families and followed six years after eighth grade, low-income students did not place less weight on expected economic

returns from a college education than students from higher income families; rather, students from low-income families were less able to translate their college plans into actual college enrollment (Rouse, 2004). Similar findings from an analysis of student survey data from the National Educational Longitudinal Study (NELS:88/2000) indicated lower attainment rates of bachelor's degrees for first-generation college students than their original college aspirations (McCarron & Inkelas, 2006).

The findings on students' future orientation/aspirations highlight the importance of providing guidance in the development and attainment of educational goals. A future orientation and aspirations are also critical psychosocial factors for students who encounter social and economic barriers as they navigate from high school to postsecondary institutions.

Students' conception of ability. Some students believe their intelligence is unchangeable; they either have it or not (i.e., entity theory, Blackwell et al., 2007; Dweck, 2007). This perception gears students who think they lack intelligence either produce little or no effort in their work or give up when confronted with a difficult task. "Students with this fixed mind-set become excessively concerned with how smart they are, seeking tasks that will prove their intelligence and avoiding ones that might not" (Dweck, 2007, p. 34). For example, Blackwell et al. (2007) conducted two studies on the role of theories of intelligence on high school students' grades, differentiating the variation between fixed (entity theory) and malleable (incremental theory) forms of intelligence. In their first study of over 300 students varying in ethnicity, achievement, and SES, students who believed their intelligence was malleable (growth mind-set) showed an increase in math grades from the beginning to end of high school, while a

belief in a fixed intelligence (fixed mind-set) predicted a flat trajectory (Blackwell et al., 2007).

Based on a student sample of approximately 79% eligible for free and reduced lunch, Blackwell et al.'s (2007) second study found that teaching students the incremental theory significantly enhanced their academic motivation, which was a significant factor in their academic success. Specifically, teachers reported improved math grades for the treatment group and decreased math grades for the control group (Blackwell et al., 2007). Similar findings have been found at the college level on students who were taught intelligence as malleable (i.e., effectiveness of learning goals instead of performance goals; Aronson et al., 2002). In particular, undergraduate students at Stanford attained significantly higher grades than other students who were instructed on multiple intelligences, and who were in the no-treatment control group; however, SES information was not included. Nevertheless, when students adopt and develop a growth-mind-set, they do not worry "about how smart they will appear", states Dweck (2007), "they take on challenges and stick to them" (p. 35).

Multiple concurrent factors. There has been recent interest on the interplay between academic and psychosocial factors when exploring student outcomes in higher education. Based on a comprehensive meta-analysis of 109 studies, Robbins et al. (2004) examined nine psychosocial factors in relation to the academic performance (GPA) and persistence (retention) of full-time students at two- and four-year higher education institutions. Although many psychosocial factors were found to influence postsecondary performance and persistence, several moderate to strong concurrent relationships emerged. When predicting performance, academic goals, academic self-efficacy, and

institutional commitment were the strongest predictors (13% of variance explained), stronger than SES, high school GPA, and ACT/SAT scores (9% of variance explained; Robbins et al., 2004). With respect to persistence, high school GPA, standardized achievement scores, academic self-efficacy, and achievement motivation revealed to be the best predictors (Robbins et al., 2004). Overall, both academic and psychosocial factors were more influential than SES in predicting performance and persistence.

In a later study, Robbins et al. (2006) explored the predictive validity of psychosocial variables on first-year college GPA and retention on a randomized sample of 14,642 full-time students at two- and four-year institutions; the sample included significant percentages of participants from low-SES households (57.5% at two-year and 46.9% four-year institutions were from low-income homes, 49.4% at two-year and 32% at four-year institutions had parent(s) with high school degree/equivalent or less). Moreover, the researchers controlled for institutional characteristics (i.e., admissions policy, enrollment size, public vs. private), demographics (i.e., gender, race/ethnicity, and SES), and prior academic achievement (i.e., high school GPA and ACT composite score). Academic discipline consistently predicted first-year college GPA and first-year retention at two- and four-year institutions, while academic discipline and commitment to college concurrently predicted retention outcomes. Standardized achievement test score was a strong predictor of academic performance, but only at four-year postsecondary institutions ($\beta = .27$). In addition, SES was predictive of retention and GPA at four-year institutions ($R^2 = .05$), though not as strong after considering academic preparation and psychosocial factors. These findings suggest that measures of motivational, self-management, and social engagement factors (academic discipline and commitment to

college) are related to academic performance and retention within the first-year at postsecondary institutions when sociodemographic and academic factors are controlled (Robbins et al., 2006).

Another study that examined the relationship between four noncognitive behaviors (i.e., work habits, sociability/cooperativeness, extracurricular participation and attitudes) and cognitive skills (i.e., achievement test scores in core academic content), followed 7,656 students 10 years after sophomore year in high school (Lleras, 2008). Both factors explained approximately one-third of the variance in the postsecondary attendance of students from high-SES households when SES was controlled (Lleras, 2008). Students with stronger social skills, work habits, and who participated in extracurricular activities in high school had higher educational attainments and earnings after controlling for cognitive skills (Lleras, 2008). Moreover, the odds of students completing more education were 2.52 times greater with one standard deviation increase in family SES (Lleras, 2008).

Other studies that have explored the influence of multiple factors have demonstrated past performance and academic ability to be the strongest predictors of persistence overtime, despite the inclusion of psychosocial variables. When using precollege social-cognitive and first-semester academic variables, first semester GPA emerged as the strongest predictor of persistence to sophomore year (odds ratio = 4.02; Khan & Nauta, 2001). Although precollege social-cognitive variables were not significant predictors, the belief that graduating leads to positive consequences (i.e., outcome expectations; odds ratio = 1.33) and the determination to persist and graduate (i.e., performance goals; odds ration = 1.99) were significant when measured during

students' second semester (Khan & Nauta, 2001). Similarly, measures of academic ability (SAT/ACT, β = .18) and high school percentile rank (β = .35) had stronger, direct effects on long-term achievement when compared to the incorporation of performance-approach goals (β = .10; Harackiewicz, Barron, & Tauer, 2002).

Though Khan and Nauta (2001) and Harackiewicz et al. (2002) presented similar findings regarding significant academic factors, limited information was provided concerning the sample demographic characteristics. For instance, Khan and Nauta (2001) reported over 80% of the sample population as White students and information regarding participants' income and parents' education levels was not provided. The sample demographic information provided by Harackiewicz et al. (2002) was limited to only participants' gender and a brief description of the setting. Therefore, the findings should be interpreted with caution when translating the information into educational policies and practice, especially when addressing the needs of students from low-SES households.

Multi-factor approach with LIFG students. Rothstein (2004) made the argument that "there may also be non-cognitive gaps between children of different social classes that are just as important" (p. 95) as the achievement gap. Even though researchers have controlled for income and parents' level of education, our understanding of the LIFG student persistence experience remains limited.

Based on the analyses of a non-cognitive questionnaire to predict first-year grades and academic progress of 54 LIFG students, Ting (1998) found that high school rank was the best predictor for first semester GPA (β = - .58). For first year GPA, high school rank (β = - .43) was also significant, along with successful leadership experience (β = .43) and

demonstrated community services (β = .35). Despite measuring several other non-cognitive factors (i.e., positive self-concept, realistic self-appraisal, knowledge acquired in a field, preference for long-range goals over short-term goals, ability to understand and cope with racism, and availability of a strong support person to turn to in crisis), high school rank (β = - .49) and a successful leadership experience (β = .42) remained as the significant predictors of academic progress, which consisted of the number of credits earned at the end of the first-year of college.

As previously discussed, students from low-SES backgrounds encounter many challenges to persistence, therefore research is needed regarding how student sociodemographic characteristics, including family income and parents' level of education, shape the postsecondary experience (Reason, 2009). In response to this, studies that focus on the LIFG population are critical in order to portray an accurate depiction of their navigation through the postsecondary experience; LIFG students make-up a significant percentage of students that are dropping out of high school and not attaining postsecondary degrees (Aud et al., 2011; Stillwell & Stable, 2013).

Contextual Factors

Another noteworthy area has been research on how contextual factors shape students' postsecondary experiences. Contextual factors consist of the home, high school, postsecondary, and peer environments. These factors, in relation to student persistence, have been useful in examining persistence because characteristics of the environment have the power to shape behavior and impact degree completion (Oseguera, 2005-2006; Reason, 2009). Research has shown contextual factors to be influential as high school students begin to think about postsecondary options and once students attend

higher education institutions. Within high school and postsecondary environments, research on the effectiveness of supports for students' learning has also been conducted. Supports for learning are critical contextual factors that empower students who face social and economic barriers as they attempt to navigate through the postsecondary experience.

The home environment. As previously stated, when sociodemographic variables have been controlled, students' SES has been demonstrated to significantly impact persistence; SES has been shown to negatively impact students from low-SES households (Pascarella et al., 2004). On the other hand, when examining pre-postsecondary contexts, the role of parents' educational expectations has been found to positively impact the student persistence experience. Diemer and Li (2011) analyzed data of a subsample of low-income students from the Child Development Supplement and Transition to Adulthood who were old enough to have transitioned to postsecondary by 2007. Maternal expectations was the most significant predictor of students' educational expectancies ($\beta = .63$), which was an indirect and significant predictor of persistence ($\beta = .38$; Diemer & Li, 2011). Specifically, students' educational expectancies was a significant predictor of persistence five years after high school ($\beta = .47$; Diemer & Li, 2011). These findings suggest that precollege characteristics, parental and youth expectancies, matter in explaining how students, who are low-income, persist to postsecondary institutions (Diemer & Li, 2011).

Comparable results were found in an analysis of student survey data in a study that began in high school and followed students for eight years (NELS:88/2000; McCarron & Inkelas, 2006). For first-generation and non-first-generation students,

parental involvement was relatively strong in explaining the variance for students' educational aspirations for postsecondary degrees (16.1%; McCarron & Inkelas, 2006). Unlike results for non-first-generation students, parental involvement was not the main predictor for first-generation students' educational aspirations (5.9% variance explained); perceptions of the importance of good grades slightly explained more of the variance in students' educational aspirations (6.5%; McCarron & Inkelas, 2006). It was not surprising that self-perceptions of grades were to some extent more powerful in predicting educational aspirations than parental involvement, considering that first-generation students' parents tend to have limited information regarding the postsecondary education culture (McCarron & Inkelas, 2006).

The high school environment. Researchers have agreed that there are positive implications regarding the completion of a rigorous high school curriculum on student persistence, more than that of grades or class rank (Adelman, 2006; Conley, 2007; Santoli, 2002). Adelman (2006), in an extensive analysis of data gathered from the National Education Longitudinal Study, found that the quality of a student's high school curriculum was more influential than SAT/ACT scores in predicting persistence into the second year of college ($\beta = .41$). Further analysis revealed that courses geared towards math and science yielded stronger effects on college readiness and persistence ($r = .53$) than when examining the impact of AP courses in general ($r = .31$; Adelman, 2006).

An interaction between SES and the high school curriculum has been found to be highly influential in student persistence. Academic resources (a composite variable that incorporated the value of the high school curriculum) had a higher probability of degree completion by 15% ($\beta = .149$) than SES, which improved the probability of degree

completion by 7% ($\beta = .067$; Adelman, 2006). These findings suggest that a strong academic preparation in high school helped students overcome the adverse effects of growing up in low-SES environments on persistence (Adelman, 2006). Despite the high predictive power of a rigorous high school curriculum, LIFG students are underrepresented in AP classes (Ndura, Robinson, & Ochs, 2003). After examining several high schools within a school district, enrollment in AP classes was significantly related to the professions and SES levels of the students' parents (Ndura et al., 2003). Although the findings of Adelman (2006) and Ndura et al. (2003) provide important information for educators, the sample populations consisted of small percentages of students from low-SES households. Also, Ndura et al. (2003) examined enrollment patterns by race/ethnic groups, depicting Hispanic/Latinos and Native American student groups as having the lowest average income and/or parents with low educational attainment instead of controlling for sociodemographic variables.

Within the high school environment, the incorporation of a college-going-culture has provided students with critical information pertaining to higher education, particularly about both gaining acceptance and navigating within the higher education culture (Conley, 2009). Related to a college-going-culture is college readiness, which is defined by Conley (2007) as the level of preparation students receive in high school needed for success in higher education. Conley (2007) has highlighted the important contextual factors on college readiness and success, such as key cognitive strategies (analysis, interpretation, precision, accuracy problem solving, and reasoning); academic content knowledge; attitudes and behavioral attitudes; and contextual knowledge (how to apply to college, manage financial aid, and adjusting to college life). However, when

researchers have examined reasons for low high school graduation rates, it was found that many students have been mislead in their belief about being college ready due to a misalignment between the high school culture, including the academic preparation process, and the actual knowledge and skill requirements of higher learning institutions (Achieve Inc., 2004; Thomasian et al., 2008; Venezia, Callan, Finney, Kirst, & Usdan, 2005).

When concentrating on students from low-income households, Roderick et al. (2011) investigated the extent to which indicators of urban high schools' college-going-climate impacted thier application, enrollment, and retention at four-year colleges. This study drew from the Consortium on Chicago School Research (CCSR), where 77% of the 5,194 students qualified for free and reduced priced lunch and 40% of African American; 40% of White; and 80% of Hispanic/Latino students did not have family members with bachelor's degrees. The findings suggested that preparation and college aspirations did not directly translate into the enrollment and attendance at four-year colleges. Teachers that reported holding high expectations and providing guidance with the college financial aid application had a significant impact on students' postsecondary enrollment; participants were approximately nine to thirteen percentage points more likely to enroll in college than those who were not provided college information from teachers (Roderick et al., 2011).

The research presented supports the importance of high school environments that hold all students to high expectations. These environments include a rigorous high school curriculum (Adelman, 2006) that includes AP classes (Ndura et al., 2003) and a college-going-culture that includes high teacher expectations and college knowledge

(Conley, 2007, 2009; Roderick et al., 2011); these environments are ones where students learn best (Tinto, 2006).

Student supports for learning in high school. Within the high school environment, supports for learning are often in place to assist students to overcome challenges that negatively impact their persistence. Some examples of programs that support high school students include TRiO programs and AVID (Advancement via Individual Determination). Like many contextual factors, supports for learning are distinct in their focus on guiding students' access into higher education.

Within the high school setting, TRiO programs are federally funded (e.g., Upward Bound, Talent Search) and offer counseling, tutoring, mentoring, and information regarding application and acceptance into higher education (Engle et al., 2006). In a quasi-experimental design to assess the effectiveness of Talent Search in Texas, Indiana, and Florida, findings revealed that across the three states, participants were more likely to apply for financial aid (12%, 31%, 20%, respectively) and enroll in postsecondary education (52%, 8%, and 42%, respectively) than LIFG students who had not participated in Talent Search (The Pell Institute, 2009). Moreover, data from studies conducted by the U.S. Department of Education has shown that participation in TRiO programs has had a significant impact on the educational outcomes of LIFG students and students with disabilities (The Pell Institute, 2009).

AVID (Advancement Via Individual Determination), a non-federally funded program, provides academic instruction, tutorial support, and motivational activities, in addition to college preparation, and targets fourth to twelfth grade students who are interested in college but have below average grades (AVID, 2012; Gira, 2008). In a

study that compared AVID with non-AVID and GEAR UP (federally funded program for LIFG students, N = 142) programs, researchers found that participation in both AVID and GEAR UP accounted for 7% of the variance in advanced course taking behavior. Increases in students' college knowledge was reported for students enrolled in the college preparatory programs and significantly higher academic preparation was only reported for AVID students (Watt et al., 2007).

The postsecondary environment. Upon enrolling in postsecondary institutions, students enter environments that have the ability to shape their behaviors and impact their success (Reason, 2009). Based on an analysis of longitudinal national survey data of 63,640 full-time students, living on campus, the size of the institution, selectivity/quality of institution, mission (public vs. private), and peer group characteristics affected degree completion when background characteristics, environmental context, and structural characteristics were controlled (Oseguera, 2005-2006). In particular, students who lived on campus were observed to be more engaged in campus resources, facilities, and with staff (Oseguera, 2005-2006). Furthermore, attending a large public college or university, with higher proportions of students from high-SES backgrounds, was found to negatively impact participants' degree completion (Oseguera, 2005-2006).

Schreiner et al. (2011) closely examined the university climate through a qualitative approach and posed a good question, "what are the attitudes and behaviors of faculty and staff that contribute to the successful persistence of high-risk students" (p. 324)? Persistent high-risk students were randomly selected based on low admission test scores, placement in remedial classes, completion of at least three semesters, and attainment of a 2.5 or higher GPA. The students reported that college personnel

positively influenced their persistence by caring about them, helping meet their needs, answering questions, knowing them by name, showing them how to address difficult work, and spending time with them (Schreiner et al., 2011). Although the researchers provided important information regarding the persistence of high-risk students, information pertaining to SES was not considered; differences were broken down by race/ethnicity.

The peer environment. As undergraduate students become more independent, the peer environment becomes very influential because it represents a system of "values, beliefs, attitudes and expectations" (Reason, 2007, p. 670). For example, Braxton et al. (2008) examined the relationship of a student's social integration, level of subsequent institutional commitment, and persistence on a randomly selected multi-institutional sample of 408 first-time, fulltime, first-year students. The results indicated that after controlling for students' demographic information (i.e., race/ethnicity, parents' income, education) and initial institutional commitment (i.e., ranking of participants' college choice), students' level of subsequent institutional commitment (i.e., importance of graduating and satisfaction with college choice) was positively and statistically significant to student enrollment into the following semester (odds ratio = 3.08; Braxton et al., 2008). In addition, a significant and positive relationship between the social integration and subsequent institutional commitment was found; in other words, interpersonal relationships and how relationships influenced intellectual and personal growth, social relationships, and values impacted the likelihood of persistence (Braxton et al., 2008).

Another critical component of the peer environment has been involvement in student groups and organizations. Co-curricular activities that strengthen student involvement in educationally relevant activities, such as academic student groups and volunteer organizations, have been demonstrated to increase persistence (Pascarella & Terenzini, 2005). As previously discussed, Pascarella et al. (2004) analyzed data from a longitudinal study of college student experiences and outcomes (National Study of Student Learning). For first-generation students during the second- and third-year of college, marginally significant educational benefits were seen, in the presence of controls for precollege and demographic variables, based on involvement in co-curricular activities ($\beta = .10$). In particular, co-curricular activities had positive effects on critical thinking, degree plans, internal locus of attribution for academic success, and inclination for higher-order cognitive tasks. Similarly, non-course-related interactions with peers positively impacted science reasoning, writing skills, and educational degree plans for first-generation students ($\beta = .09$; Pascarella et al., 2004). Regardless of the educational benefits of co-curricular involvement and peer interactions, first-generation students were significantly less likely to participate in these activities during college (Pascarella et al., 2004). With respect to non-first-generation students, co-curricular and non-course-related involvement demonstrated either a slightly positive, significantly negative, or non-significant impact on the same educational outcomes (Pascarella et al., 2004).

Supports for learning. As a result of difficulties associated with the transition from high school to higher education, research has explored the effects of intervention courses at the postsecondary level. Strumpf and Hunt (1993) examined the effects of enrollment in first-year seminars (FYS) on persistence for 240, predominantly White,

full-time students. A major component of the FYS was the instruction of critical study skills and strategies that were related to the college curriculum (Strumpf & Hunt, 1993). The researchers randomly assigned participants to either a FYS or a control group and found FYS students maintained a cumulative GPA at or above that was needed for graduation and had considerably higher retention rates through the second year (Strumpf & Hunt, 1993). Though FYS are critical supports for students' initial transition to postsecondary institutions, supports are also needed that provide guidance past the first year.

In order to support students through the postsecondary experience, with the goal of graduation, participation in career courses has been proposed as one way to empower college students (Grier-Reed, Skaar, & Conkel-Ziebell, 2009). Grier-Reed and Ganuza (2009) implemented a constructivist career course with university students (55% White and 45% students from different races/ethnicities) and used career and student engagement surveys to measure differences in engagement and empowerment between treatment and comparison groups (students enrolled in introductory social science and humanity courses). The course aimed to improve students' career decision self-efficacy through the incorporation of developing identity, cultural capital, and supportive relationships with peers (Grier-Reed & Ganuza, 2009). The survey data showed greater decreases in self-defeating career thoughts and larger increases in career decision self-efficacy for students enrolled in the constructivist career course than in the comparison groups and no differences between races/ethnicities (Grier-Reed & Ganuza, 2009). In other words, there was a trend towards increased empowerment for all students enrolled in the career course.

Another support for students' learning, in particular for students that attend large universities, has been multicultural learning communities (MLC; Jehangir, 2010). Based on a qualitative study on the impact of a multicultural learning community for 128 LIFG college students, Jehangir (2010) concluded that participants felt a sense of belonging and validation as competent learners when they were able to include personal stories and lived experiences in classroom discussions. The MLC were comprised of three courses (first-year composition, humanities, and multicultural relations) designed to link academic and student development through themes of identity, community and social agency (Jehangir, 2010). Using information from the student interviews, Jehangir (2010) painted a descriptive picture of how a support for students' learning can positively affect those from low-SES backgrounds:

> Bringing the lived experiences into the classroom is messy and imperfect, but its authenticity allows students to be coteachers and participants in knowledge construction. In doing so, we build the necessary bridges to sustain students who have been marginalized and silenced. These bridges can serve many purposes: a conduit between the home and school world of first-generation students, a link between their inner and outer faculties as learner, connecter with peers with similar and different experiences, and an opportunity to allow students and their communities to inform the academy. (p. 549)

Considering that students spend a significant amount of time in the classroom, feelings of isolation and marginalization experienced at large universities by many first-generation students need to be addressed in order to create successful postsecondary environments (Jehangir, 2010).

In addition to academic and psychosocial factors, student persistence is affected by the home, high school, postsecondary, and peer environments. These contextual factors provide a better understanding of the differential effects on degree completion.

However, more research is needed regarding contextual factors that shape LIFG student persistence as they navigate and interact with the postsecondary environment (Oseguera, 2005-2006; Reason, 2009).

Summary

Although most students aspire to attain postsecondary degrees, the *Condition of Education 2012* report revealed that significant percentages of LIFG, Black, Latino/Hispanic, and American Indian/Alaskan Native students are not persisting. However, in studies where income and parents' level of education were controlled, discrepancies in SES, not race, have shaped students' academic persistence (Pascarella et al., 2004; Walpole, 2003). Consequently, the LIFG population encompasses a broad range of students that encounter economical and psychosocial challenges with regards to persistence (Bloom, 2006; Goldrick-Rab & Pfeffer, 2009; Pascarella et al., 2004; Stephans et al., 2012; Walpole, 2003).

Guided by Reason's (2009) theoretical framework for student persistence, this literature review examined pre-postsecondary characteristics and experiences, such as sociodemographic, academic, psychosocial, and contextual factors that influence the student persistence experience. Though it was established that there are various significant predictors of persistence, many of the findings need to be interpreted with caution due to ambiguity regarding the sample demographic characteristics (Reason, 2009; Tinto, 2006). It was evident that some researchers group participants by race/ethnicity and did not appear to control for possible confounding variables, such as parents' income and education, which makes findings less valid and informative for policymakers, researchers, and educators.

In order for students to access better jobs and for our country to create a competitive economy with other nations, students need to obtain postsecondary degrees. If we are going to empower LIFG students by preparing them for postsecondary education, we need to understand where they are coming from and the contexts in which they are making decisions. Student voice may add to our understanding of why some students persist despite common barriers and challenges in a way the quantitative data cannot. Qualitative interviews are a valued approach that allows researchers to examine a continuum of persistence for LIFG students and can help answer the following question: To what extent do academic, psychosocial, and contextual factors and the interrelationship among these factors shape LIFG students' persistence as they navigate and interact with the postsecondary environment?

Chapter 3

Method

The purpose of the study is to explore indicators of academic, psychosocial, and contextual factors that shape the persistence of low-income and first-generation (LIFG) students. A qualitative interview study was the primary method used to explore these factors in depth through data gathered from interviews with LIFG students in three groups: (1) those who had not declared a major, (2) those who declared a major, and (3) those who graduated from college. In addition, student academic data were quantitatively analyzed to identify areas of commonalities and/or differences emerging from the data to supplement information about the postsecondary experience. The participants, research methodology, procedure, and analysis for all data sources will be presented in this chapter. Any findings from this study may be limited to the experiences of students at this particular university and results may vary from other postsecondary institutions.

Participants

Participants in this study included 29 low-income and first-generation (LIFG) college students who attended or had graduated from a large, urban research university in the Midwest. Participants for the study were taken from a database of 94 eligible TRiO students who either were receiving services or had received services from 2008-2011 at the university. The sample included a total of 21 females and 8 males between the ages of 18 and 23 years (M = 20.8, SD = 1.8). Descriptive data on the sample are provided in Table 3.

Table 3

Sample Descriptive Data

Characteristic	No Major (*n* = 9)		Declared Major (*n* = 10)		Graduated (*n* = 10)		Total (*N* = 29)	
Mean age	18.6		20.8		22.7		20.8	
Ethnicity								
Asian immigrant	2	(22.2)	4	(40)	1	(10)	7	(24.1)
African immigrant	1	(11.1)	3	(30)	1	(10)	5	(17.2)
African American	2	(22.2)			2	(20)	4	(13.8)
White	1	(11.1)	2	(20)	1	(10)	4	(13.8)
Latino	1	(11.1)	1	(10)	1	(10)	3	(10.3)
Mixed race	1	(11.1)			2	(20)	3	(10.3)
Native American	1	(11.1)			1	(10)	2	(6.9)
Indian					1	(10)	1	(3.4)
Gender								
Female	7	(77.7)	6	(60)	8	(80)	21	(72.4)
Male	2	(22.2)	4	(40)	2	(20)	8	(27.6)
Major[a]								
Business/HR			2	(20)	2	(20)	4	(20)
FSOS			2	(20)	2	(20)	4	(20)
Sociology			2	(20)	1	(10)	3	(15)
EDHD			2	(20)			2	(10)
Public Health			1	(10)	1	(10)	2	(10)
Biology			1	(10)			1	(5)
Child Development					1	(10)	1	(5)
Political Science					1	(10)	1	(5)
History					1	(10)	1	(5)
Sports Management					1	(10)	1	(5)

Note. Percentages are shown in parentheses. FSOS = Family Social Science; EDHD = Early Childhood Education: Foundations.
[a]Percentages included students in the declared major and graduated groups.

Sampling procedures. The sampling plan was to randomly select 10 students for each group from the TRiO database. At first, the participants were categorized according to group criteria: *withdrew*, *no major*, *declared major*, and *graduated*. The withdrew group, which was dropped and will be discussed further, encompassed first-year students who had not registered for a second semester at the university during the 2010-2011 school year. The no major group consisted of students who enrolled in the fall of 2010 and had not declared a major. The declared major group included students who enrolled fall 2009 and had declared a major at the university. The graduated group consisted of students who had enrolled in the fall of 2008 and had attained bachelor's degrees from the university.

Based on the TRiO database of 94 eligible students, 10 met the criteria for the withdrew group category, 48 for the undeclared major group category, 22 for the declared major group category, and 14 for the graduated group category. The total number of TRiO students that were invited to participate either by phone, email, or social media was 88 (see Appendix A for invitation to participate statement). Of the 88 students invited to participate, 31 students responded and 29 completed interviews. The description of the participant sampling by group is summarized in Table 4.

Table 4

Description of Participant Sampling by Group

Description	Total	Withdrew[c]	No Major	Declared Major[a]	Graduated[a]
Student database	94	10	48	22	14
Students recruited	88	10	48	20	10
Students who responded	32	1	11	10	10
Students not recruited	6			2	4
Interviews completed	29	2	9	10	10
Scheduled interviews not completed	3	1	2		
Reasons					
Forgot – too busy to reschedule	1		1		
No answer	2	1	1		
Non-response[b]	56	9	37	10	
Reasons					
Email - no reply	56	9	37	10	
Phone message	50	3	37	10	
Social media - no reply	40	8	30	2	
Disconnected number	4	4			
Email – returned to sender	2	2			
Wrong number	1	1			
No phone number listed	1	1			

Note. Students who responded = students that answered phone calls, returned calls, replied to emails, and/or replied to social media messages; Students not recruited = students were not recruited because the goal of 10 participants had been met for the declared major and graduated groups; Non-response = total number of students that did not respond to recruitment letter.
[a]Students were randomly assigned to group. [b]There was a combination of multiple working and non-working numbers and emails for each student. Also, not all students were found on the social media website. [c]This group was dropped due to the small sample size.

As previously stated, the sampling plan was to randomly select 10 students for each group. For each round of recruitment (10 randomly selected students at a time), all students were sent two emails, called twice, and sent a message on a social media website (if found) over a span of a week. Since there were 10 students in the TRiO database that fell under the withdrew group criteria, all of the students were invited to participate; yet, none completed interviews. With respect to the no major group, random selection was initially utilized; four rounds of 10 randomly selected students were invited to participate. Despite randomly selecting 40 students, the goal of 10 in the no major group was not reached and as a result, the remaining 8 students were recruited. For the declared major group, the sampling goal of 10 students was not reached after the first round of recruitment, therefore, a second group of 10 randomly selected students were recruited and the sampling goal of 10 was reached. For the graduated group, the goal of 10 students was reached after one round of recruitment.

Participant subgroup. When comparing influential academic, psychosocial, and contextual factors across groups, information from the withdrew group was considered critical in understanding what challenges LIFG students' encounter when navigating to postsecondary education. Despite several attempts, students who had withdrawn from the university did not respond to the invitation to participate. Therefore, a second attempt was made to recruit first-year students, who had withdrawn after their first semester at the university during the spring of the 2011-2012 school year; this yielded seven students. All seven students were recruited using the same recruiting method previously described (two emails, two phone calls, and a message on a social media website). Three students responded to the invitation to participate; one student declined an interview and two

agreed to complete interviews. The subgroup was composed of two females, both 18 years old: one identified as an Asian immigrant and the other identified as Hispanic/Latina. Considering that only two students were interviewed, the withdrew group was dropped from the study and only anecdotal data will be discussed in Chapter 4. Data from the two students that withdrew during the 2011-2012 school year will not be included in the qualitative and quantitative analyses.

Limitations of recruitment. Taking into account that many LIFG students come from low-income families with limited postsecondary experience and education levels (Deli-Amen & DeLuca, 2010; Jehangir, 2010; Walpole, 2003), limitations and variations in student recruitment need to be discussed. As indicated in Table 4, there were several reasons for the lack of responses from TRiO students. It is hypothesized that many of the students who did not return to the university, no longer checked their university emails, had changed their phone numbers, and/or had non-working numbers. With respect to students from the no major group, many did not respond to the invitation to participate and a few missed their scheduled interview times. It is hypothesized that the younger students were adjusting to a new schedule and/or workload and did not have time to complete an interview. More students from the declared major and graduated groups responded to the invitation to participate statement (see Appendix A). Perhaps students from these two groups were working towards a goal and/or had stories to tell about their successful persistence.

Research context. The university is a land grant institution with 17 colleges and enrolls approximately 66,000 students of which approximately 40,500 are undergraduates. Of the numbers enrolled in 2008, approximately 22% came from

families that earned $30,000 or less (Fergus et al., 2008). There are several campus student support services as resources for university students. In order to qualify for TRiO programs at the undergraduate level, the participant needs to be a first-generation college student and from a low-income household. Students in TRiO are accepted into the program and provided with academic support and advising (The Pell Institute, 2009). Once students declare a major, they no longer qualify for TRiO services. TRiO student services are designed to provide the cultural capital that many do not acquire from their homes (Council for Opportunity in Education [COE], 2013). This includes extra academic advising, information about navigating through the university, tutoring, and support (COE, 2013). However, not all low-income students are served and the supports they receive vary in intensity among programs.

Research Methodology

Qualitative research focuses on how meaning is socially pieced together by individuals in interaction with their environment and includes several approaches: interpretive, critical, and postmodern or poststructural (Merriam, 2002). This study primarily employed an interpretive approach that was exploratory and descriptive in order to explore influential factors of LIFG student persistence from entering college, to declaring a major, and eventually graduating. In particular, the interpretive approach seeks to understand how individuals experience and interact with their world and what that means to them (Merriam, 2002). Themes occurred as the data were collected and examined. The interpretive qualitative approach is not proposed to find causal relationships and there are no hypotheses. Rather, qualitative researchers are interested in understanding what the interpretations are at a specific point in time and in a particular

environment (Merriam, 2002). This study applied an emergent design, where often times the initial plan for research cannot be tightly prearranged and all steps of the process may change or be altered after the data collection (Creswell, 2009).

A semi-structured interview was used, which is seen as an interchange of views between two individuals to acquire descriptions of the life world of the interviewee with respect to comprehending the meaning of a proposed phenomenon (Kvale, 1996). This approach is termed semi-structured because there is room for change in the order of the questioning and the interviewer can follow-up on information given by the interviewee, as needed. In order to reach the goal of obtaining the interviewee's story, Kvale (1996) noted that the interview should incorporate introducing, follow-up, probing, specifying, direct, indirect, structuring, and interpreting questions. The interview for this study incorporated these different types of interview questions. See Appendix B for the student interview questions. In addition, data were analyzed quantitatively and used as supplemental evidence to identify differences among the three groups of LIFG students in terms of their academic preparedness, ability and past performance.

A review of the research literature and Reason's (2009) student persistence framework guided the formation of the student interview questions for this study. As shown in Table 5, academic factors were composed of quantitative data, which were attained from the TRiO database and were not addressed in the student interview. The student interview further explored perceptions of psychosocial and contextual factors that were influential in students' persistence. Table 5 provides definitions of the dependent variables and how these variables were measured based on the research questions. The research questions to be addressed in this study are as follows:

1. Are there significant differences in academic factors among the groups?
2. How do perceptions of influential psychosocial factors differ among the groups?
3. How do perceptions of influential contextual factors differ among the groups?
4. What valuable recommendations do students provide for educators, prospective college students, and current college students?

Three groups will be compared: students who did not declare majors, students who declared majors, and students who graduated.

Table 5

Definitions and Measures by Research Question

Factor	Definition	Measure
Question 1: Influential academic factors		
High school preparation	AP classes, honors sections, accelerated sequences	Number of advanced courses taken by each student in high school
High school performance	Cumulative high school GPA used in college application	Based on a 4-point scale (4.0 = A) as per university application standards
High school ability	College entrance exams	ACT composite scores submitted in college application
College performance	Cumulative college GPA	Based on a 4-point scale (4.0 = A) as per university grading standards
Question 2: Influential psychosocial factors		
Reasons for attending	Reasons for students attending postsecondary, including academic goal attainment, career goals, and others	What are some reasons you attended college?
Academic discipline[a]	The amount of effort a student invests in schoolwork and the degree to which s/he sees him/herself as hardworking and thorough	Some students believe they are either a hard, moderate, or minimal worker, what type of worker are you?
Academic self-efficacy[b]	Self-evaluation of one's ability and/or probability for success in an academic setting	How do you think you perform on assignments, tests, and papers?

Factor	Definition	Measure
Academic expectations	Academic expectations held by student	Let's think about what academic expectations you hold or have held at the University. In what way did you meet them? What do they mean to you
Social connectedness[b]	Student connectedness to college environment, relationship with peers, faculty and staff, as well as involvement in campus activities	How connected do/did you feel with university peers, staff, and faculty? In what way was your connection to others similar or different from high school? Describe your current/past involvement in extracurricular activities in college. In what way is your involvement in extracurricular activities similar or different from
Commitment to college[a]	Students' commitment to staying in college and attaining a degree	How committed do you see yourself in terms of graduating? When you entered the University, how committed did you feel in terms of graduating?
Problem-solving skills[c]	The ability to develop strategies and methods to solve problems	When faced with an academic problem whether with a professor, on an assignment, or on a test, how well have you done when confronted with an academic problem? What skills did you use? How did you acquire those skills?
Time orientation	Past-oriented means focusing on or thinking about events that have occurred in the past, present-oriented means focusing on the here and now, and future-oriented means focusing on the future	Which time orientation is most like you, past, present, or future? How has your time orientation helped or hindered your time in college?
Conception of ability	The role of ability and whether it can or cannot be changed	Have you ever been disappointed in your performance? Was it due to a lack of effort, did you not use or know about the appropriate strategies, was it bad luck, was it due to the difficulty of an assignment, or other reasons

Factor	Definition	Measure
Question 3: Influential contextual factors		
College-going-culture[c]	Availability of financial aid information, scholarship, and acceptance criteria from high school, parents and peers and level of challenge of college courses; high school provided a college-going-culture, including high expectations for all students	Some high schools support students in terms of providing a lot of information about postsecondary options, while other schools leave it up to the student to gather information on postsecondary options. Tell me about your high school.
Postsecondary expectations	Expectations held by peers, family and high school staff about postsecondary	Tell me about the expectations held by your high school teachers, staff, family and peers.
Supports for learning	Supports and resources helpful to students as they go from high school to college; such as tutors, advisors, resource centers, family, etc.	What supports did you have in high school? In college?
Supports needed	Supports that would have been helpful in transition from high school to college	What supports did you need and want?
Question 4: Recommendations		
	Recommendations from LIFG students for high school educators, prospective college students, and current college students	Given your experiences, what should educators do to help students be more successful in college? What would you tell high school students who are thinking about college? What would you tell current college students?

Note. Academic factors were examined quantitatively. Psychosocial and contextual factors were examined qualitatively.
[a]Definition adapted from Robbins et al. (2006). [b]Definition adapted from Robbins et al. (2004). [c]Definition adapted from Conley (2009).

Procedure

The interview questions were piloted with a randomly selected TRiO student from the database who did not participate in the study. One question was slightly altered in order to better elicit perceptions around contextual factors associated with student persistence in this study. The original question was stated as "Which supports were most helpful?" and changed to "Which supports did you have in high school? College?" However, the fundamental tenets of the question remained the same.

As previously stated, phone calls, emails, and social media messages were used to recruit participants. If the participant answered by phone, the researcher provided the option to either be interviewed on the spot or to arrange a future interview time. If a response was received by email or social media, an interview time was scheduled at a future time and date. When a participant scheduled an interview time, email reminders were sent two days prior to the interview; phone and/or text reminders (if phone number was current and participant received text messages) were sent out the day of the interview. With consent of the participants, phone or video interviews were conducted and audio-recorded. For phone conferences, a speaker phone was used in order to be able to record for accuracy purposes. When students scheduled an interview time, the consent form, along with the interview questions, were emailed to them (see Appendix B for interview questions and Appendix C for the consent information sheet). For the participants who were interviewed on the spot, the consent was read to them and the interview questions were emailed. These participants were given time to open up their email to be able to follow the questions and look over the consent.

Twenty-two (75%, respectively) of the interviews were conducted with use of a web camera. The interviews were scheduled for 60 minutes; however, some of the interviews were shorter due to more abrupt responses by the student and/or a small amount of information to share. Specifically, interviews averaged 58 minutes in length with a range of 35-76 minutes. Students who completed the interview were informed that they would be entered in four drawings for opportunities to receive a $25.00 gift card to Target as compensation for their participation in the interview. Four participants won the raffle and received Target gift cards.

Data Analysis

The purpose of the analysis was to identify trends across groups, both quantitatively and qualitatively. To address the first research question a series of one-way analysis of variances (ANOVA) were conducted to compare means (high school preparation, high school performance, high school ability and college performance) among the three student groups (no major, declared major, and graduated; Utts & Heckard, 2006). The dependent variables examined by the ANOVA test were the amount of advanced high school courses taken, high school GPA, ACT scores, and college GPA for students in the three groups, which were the independent variables. I am interested in whether there are any differences in high school preparedness, performance, ability and college performance among the groups. Are there any specific variables that are significantly higher or lower for certain groups of LIFG students that have persisted?

For analysis of the remaining research questions, a meaning categorization approach was utilized to form themes after the student interviews were transcribed (Kvale, 1996). The response to the interview questions were coded using a framework

from Creswell (2009). First, the responses were organized and read thoroughly in order to acquire a broad understanding of the data. Next, the responses were coded by topic and related topics were grouped together. The categories that emerged were assigned descriptive themes and responses were all recoded based on those categories that transpired. In accordance with Creswell's (2009) framework, these were the recommended steps that I followed in the suggested order:

- organized and prepared the data for analysis through the transcription of interviews;
- read through all the data and obtained a broad sense of the information revealing on overall meaning and exploring what general ideas participants were stating;
- coded data by organizing it into segments of text and labeling categories with a term, often based on the actual language of participants (see Table 6);
- incorporated themes and descriptions that included major findings, displayed different perspectives from participants supported by quotations, and used quotations to create headings in the findings section of study (presented in Chapter 4);
- addressed themes/descriptions with details, subthemes, specific illustrations, quotes and/or visuals, figures, and tables (presented in Chapter 4);
- percentages were developed to show similarities of themes across the groups (presented in Chapter 4); and

- interpreted the meaning of themes/descriptions by asking what was learned and to provide new questions (presented in Chapter 5).

Due to the large amount of data that can be generated in qualitative research, attention was given to Creswell's (2009) suggestion to identify themes in order to aid the data reduction process. In particular, four areas were considered: expected topics based on past literature and common sense, surprising and unanticipated themes, unusual themes of conceptual interest to readers, and themes that address a larger theoretical perspective in the research (Creswell, 2009). As a result, the developed themes from LIFG student responses were based on the four suggested areas and are listed in Table 6. Table 6 also includes the operational definitions that were also based on the student responses. The themes that were not included in the study did not match these four areas and/or were unrelated (i.e., student provided information that did not answer interview question).

To ascertain the consistency of the results, Kvale (1996) identified the importance of verifying the analysis by having an outside person also categorize the interview data in themes. Therefore, interrater agreement was conducted between the author and another doctoral graduate student that was unfamiliar with the research; the rater was provided a list of themes and a list of student responses that were not matched. Agreement after individually coding the responses into the themes was 97.6%.

In the next chapter, the results will be discussed by research question. Specifically, results of the quantitative analyses will be outlined that address the first research question. To address the remaining research questions, student responses that fit the developed themes will be provided by group. Furthermore, in order to compare and

contrast themes across the three groups, the most frequent and infrequent themes for each group will also be discussed.

Table 6

Operational Definition and Rationale for the Development of Themes from Student Responses

Theme	Definition	Rationale
Question 2: Influential psychosocial factors		
Reasons for attending		
Personal goals	Degree attainment, career goals, independence	Theoretical
Better life	Student wants a better life than parents	Expected
Parental support	Parents/family encouraged student to attend	Theoretical
Parents without degrees	Parents did not finish high school or college	Expected
Prove parents wrong	Parents did not think there was a need for college	Surprising
Academic discipline		
Strong work ethic	Student worked harder than others because s/he lacked the academic skills in college	Expected
Effort based on class	Student put in extra time and effort based on interest in the class	Surprising
Minimum/moderate	Student completed the minimum/moderate amount of work to pass the class	Expected
Academic self-efficacy		
Lacked academic skills	Student had limited academic skills needed in college, such as writing, test-taking, and assignment completion skills	Surprising
Strong academic skills	Student had strong college level writing, test-taking, and assignment completion skills	Expected
Academic expectations		
High expectations	Student held high academic expectations	Theoretical
Moderate expectations	Student held moderate academic expectations	Surprising

Theme	Definition	Rationale
Social connectedness		
Connected – similar to HS	Student felt connected to college and was similar to connections in high school	Expected
Connected – different from HS	Student felt connected to college and was different from high school	Surprising
Not connected – different from HS	Student felt disconnected to college and was different from high school	Expected
Not connected – similar to HS	Student felt disconnected to college and was similar to high school	Surprising
Commitment to college		
Career/Degree goal	Student is committed to college because s/he wants to reach career goal and/or attain a B.A.	Expected
First one to graduate	Student is committed to college because s/he wants to be the first in the family to graduate	Expected
Paying for college	Student is committed to college because s/he is paying for tuition or was awarded a scholarship	Surprising
Problem-solving skills		
Meeting with university staff	Student contacts university faculty and/or staff when confronted with an academic problem	Expected
Writing center	Student goes to the writing center when confronted with an academic problem	Expected
Figure out on my own	Student solves problem on their own	Surprising
Acquisition of skills		
High school advanced course/program	Student acquired problem-solving skills in high school advanced courses/college readiness programs	Expected
Learned on my own	Student acquired problem-solving skills during time at the university or was a personal attribute	Surprising
Time orientation		

Theme	Definition	Rationale
Future – helps	Students exhibits future-oriented behaviors that helped in college	Expected
Present – hinders	Student exhibits present-oriented behaviors that hindered them in college	Expected
Present and future – both	Student exhibits present- and future-oriented behaviors that both hindered and helped them in college	Surprising
Past and future – both	Student exhibits past- and future-oriented behaviors that both hindered and helped them in college	Surprising
Present – helps	Student exhibits present-oriented behaviors that helped them in college	Surprising
Conception of ability		
Change with effort	Student's reasons for academic outcomes was due to the amount of effort put in	Expected
Cannot change	Student's reasons for academic outcomes was due to limited skills; a person's ability to learn stops	Expected
Question 2: Influential contextual factors		
College-going-culture		
College for all	High school provided postsecondary information to all students	Expected
For students interested	High school provided postsecondary information only for students interested	Expected
For students in advanced courses/programs	High school provided postsecondary information for students who were enrolled in advanced courses and/or college readiness programs	Surprising
Postsecondary expectations		
High school staff's expectations		
High staff expectations	High school staff held high postsecondary expectations	Theoretical
Depends on class/teacher	The type of postsecondary expectations held (high or low) depended on the class/teacher	Surprising

Theme	Definition	Rationale
Low staff expectations	High school staff held low expectations about postsecondary	Theoretical
High school peers' expectations		
High peer expectations	High school peers held high expectations about postsecondary	Theoretical
Low peer expectations	High school peers held low expectations about postsecondary	Surprising
Depended on class	High school peers' expectations about postsecondary depended on the class	Surprising
Parental expectations		
High parental expectations	Student's parents held high postsecondary expectations	Theoretical
Low parental expectations	Student's parents held low postsecondary expectations	
Moderate parental expectations	Students' parents held moderate postsecondary expectations	Surprising
		Surprising
Supports for learning	High school staff, transition program, parents/family, college resources, advanced courses, professors, student groups, college advisors, and peers	
Supports needed	College knowledge, organizational skills, none, better high school, academic support, and career knowledge	
Recommendations		
Educators		
Provide opportunities for success	Educators need to make sure students understand the material in order to have academic success	Expected
Understand student's background	Educators need to understand that students comes from low-income home and/or difficult home life	Expected

Theme	Definition	Rationale
Motivate/Engage	Educators need to motivate and engage students while teaching	Theoretical
Prospective college students		
Find resources for LIFG students	Find resources, such as scholarships and financial aid for LIFG students	Expected
Time management skills	Learn how to manage your time to avoid procrastination when completing academic tasks	Expected
Life is not easy – so work hard	Students need to work harder than others, since LIFG students tend to have difficult lives	Surprising
College is worth it	Go to college because it is worth going	Expected
Current college students		
Work hard – college will not be easy	Students need to work harder than others because college is not easy	Surprising
Time management/organizational skills	Learn how to manage your time to avoid procrastination when completing academic tasks	Expected
Major in area of interest	Major in an area that you are interested in order to be successful	Expected

Note. Operational definitions and rationale for the development of the themes based on LIFG student responses are provided. Themes were derived based on Creswell's (2009) suggestions for developing themes and reducing data. Expected = expected topic based on the literature and/or common sense; Surprising = surprising and unanticipated themes; Unusual = unusual themes of conceptual interest to readers; Theoretical = themes address a larger theoretical perspective in the research.

Chapter 4

Results

The purpose of this paper was to identify similarities and differences among LIFG students who had not declared a major, declared a major and graduated from the university regarding indicators of academic, psychosocial, and contextual factors that shaped their persistence. Student recommendations for educators, prospective students, and current college students were also gathered to gain supplemental information. To answer the first research question, a series of one-way ANOVAs were conducted to analyze differences across group means of the three student groups in high school preparation, high school performance, high school ability, and college performance. Follow-up tests were used to look for specific differences between pairs of groups. To address the remaining research questions, a meaning categorization approach was employed to form themes after transcription of student interview responses.

Research Question 1: Are There Significant Differences in Academic Factors among the Groups?

Data were analyzed using univariate analyses of variance (ANOVA). Post hoc analyses, using the Bonferroni test for significance, were used as a multiple comparison method to look for specific differences between pairs of the student groups. The standard Type I error rate of $\alpha = 0.05$ was adjusted using the Bonferonni test and a Type I error rate of $\alpha = 0.0125$ (.05/4) was used to test for significance in the series of ANOVAs (Howell, 2002). The independent variables were the three student groups: no major, declared major, and graduated. The dependent variables were high school preparation (amount of advanced courses taken), high school performance (cumulative high school

GPA), high school ability (ACT scores), and college performance (cumulative college GPA). Furthermore, the data were approximately normally distributed; in particular, there were no extreme outliers and the group standard deviations were not distinctly different.

Results of the series of ANOVAs revealed significant differences for high school performance, high school ability, and college performance variables. See Table 7 for a summary of means, standard deviations, and confidence intervals for each group. Results from the high school preparation variable were $F(2,26) = 3.77$, $MSE = 1.2$, $p = .102$, $\eta^2 = .22$, which demonstrated non-significant differences among the three groups. Results from the high school performance variable were $F(2,26) = 9.91$, $MSE = .07$, $p = .001$, $\eta^2 = .43$, which revealed statistically significant differences among the three groups. The post hoc analysis, using the Bonferronni test, showed that the graduated group had a statistically higher average GPA than the declared major group. However, the no major group did not differ significantly with the declared major group or the graduated group.

Results from the high school ability variable were $F(2,26) = 6.65$, $MSE = 6.63$, $p = .005$, $\eta^2 = .34$, which revealed statistically significant differences among the three groups. The post hoc test revealed that the declared major group had a statistically higher average ACT score than the no major and graduated major groups. However, the no major and graduated groups did not differ significantly. Results from the college performance variable were $F(2,26) = 7.24$, $MSE = .03$, $p = .003$, $\eta^2 = .35$, which demonstrated statistically significant differences among the three groups. The post hoc test showed that the graduated group had a statistically higher average college GPA than

the no major and declared major groups. However, the no major and declared major groups did not differ significantly.

Table 7

Means, Standard Deviations, and 95% Confidence Intervals by Group

	No Major (*n* = 9)		Declared Major (*n* = 10)		Graduated (*n* = 10)	
Variable	*M* (*SD*)	95 % CI	*M* (*SD*)	95 % CI	*M* (*SD*)	95 % CI
HS classes	2.33 (1.20)	[1.30, 3.15]	2.30 (1.25)	[1.40, 3.20]	1.30 (0.82)	[0.71, 1.89]
HS GPA	3.40 (0.25)	[3.21, 3.60]	3.10 (0.24)	[2.92, 3.27]	3.64 (0.31)	[3.42, 3.86]
ACT	18.67 (2.34)	[16.86, 20.47]	22.50 (1.43)	[21.47, 23.53]	19.0 (3.49)	[16.50, 21.50]
College GPA	3.03 (0.05)	[2.99, 3.07]	3.10 (0.24)	[2.92, 3.27]	3.16 (0.15)	[3.21, 3.42]

Note. HS = high school; HS classes = high school advanced courses; CI = confidence interval.

In sum, there were no differences in LIFG students' high school preparation; students took a range of one to three advanced courses in high school. Though, significant differences were seen among the groups for high school performance, high school ability, and college performance. It was not surprising to find that the graduated group had the highest college performance. Although the graduated group had the highest high school performance, it was only significantly higher than the declared major group. It was surprising to find that the declared major group had the highest high school ability and not those who had graduated. Furthermore, significant differences in high school and college performance were not found between the no major and declared major groups, and significant differences in high school ability were not found between the no major and graduated groups.

Research Question 2: How do Students' Perceptions of Influential Psychosocial Factors Differ among the Groups?

Psychosocial factors explore sets of behaviors, attributes, and strategies that influence student persistence and hold strong predictive significance in the research literature. In response to this, the following psychosocial factors were addressed in the interviews with LIFG students: (1) reasons for attending, (2) academic discipline, (3) academic self-efficacy, (4) academic expectations, (5) social connectedness, (6) commitment to college, (7) connection to college, (8) problem-solving skills, (8) time orientation, and (9) conception of ability. Based on the qualitative analysis, themes emerged within each psychosocial factor.

Representative quotations are provided in all tables; representative was determined by Creswell's (2009) suggestion to identify themes by expected, theoretical, surprising/unanticipated, and unusual. Furthermore, responses that were not included for each theme are also addressed. To address similarities and differences, frequently reported themes are highlighted, which are based on a decision point of 50% or higher of responses from each group. Least frequently reported themes are presented based on a decision point of 33.3% or less of responses provided by each group.

Reasons for attending. Students were asked reasons why they attended the university and the following themes emerged: (1) personal goals, (2) better life, (3) parental support, (4) parents without degrees, and (5) prove parents wrong (see Table 8). All of the student responses were included in one of the five themes.

Approximately 28% of LIFG students reported having personal goals as their reason for attending the university. Personal goals included the attainment of bachelor's

degrees, specific career goals, and independence. This theme was mentioned by 22.2% of no major students, 40% of declared major students, and 20% of graduated students.

Another reason for attending mentioned by LIFG students was for a better life (24.1%). Several students expressed not only wanting a better future for themselves, but also for their families. Other students described that a college education was the only outlet from a difficult neighborhood or home life. Better life was reported by 33.3% of no major students, 10% of declared major students, and 30% of graduated students.

Parental support was mentioned by 20.7% of LIFG students and refers to support received from parents and/or family members. While growing up, several students described receiving on-going support and encouragement from their parents to pursue postsecondary degrees and/or to take advantage of educational opportunities. For some students, their parents' did not give them any options; they had to go to college. Parental support was expressed by, 11.1% of no major students, 30% of declared major students, and 20% of graduated students.

Approximately, 21% of LIFG students indicated parents without degrees as the main reason to attend the university. Encouragement from parents was the result of parents' experiences with limited educational opportunities in their native country or having to work multiple jobs due to low levels of education. Parents without degrees was expressed by 22.2% of no major students and 20% of both declared major and graduated students.

Although this theme was not seen across the sample, 6.9% of LIFG students mentioned prove parents wrong as their reason for attending. Students described how their parents did not believe they needed to attend the university. For example, a no

major student indicated she was attending due to her father's negativity; her father believed that a bachelor's degree was unnecessary because she would end up with children. The other student, from the graduated group, stated that her mother was concerned about the cost of tuition; therefore, attending the university was the only way to prove that her mother would not have to pay. Prove parents wrong was reported by 11.1% of no major students and 10% of graduated students.

Table 8

Student Quotations on Reasons for Attending Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Personal goals	27.6%	22.2%	40%	20%
		Career goals. I want to be able to achieve goals I set, get a good career to be stable in my life, and enjoy what I do.	Pursue a career in something successful; makes me happy. Money isn't everything, but it can give me more freedom.	Academic and career goals to have the educational requirements that would help me do what I want to do.
		I wanted to get a degree, so the only way to do that was going to college.	I wanted one of those lifestyles where I work, I'm independent and I have my own money.	An education through athletics, allowed me to pursue my educational pursuits.
			I wanted a better education and degree.	
			I wanted to get a degree.	
Better life	24.1%	33.3%	10%	30%
		I wanted a better life than my parents; neither went to college.	I wanted to better myself and my family.	I had to go. Didn't want to stay where I was; knew there was better than the neighborhood where I grew up. I had to go; I was motivated by the life I had.
		A better job, education, more knowledge, more skills needed in the future.		My main push was to change my family and life for the better.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n =10)	Graduated (n = 10)
		A better future to make more money. I don't want to go through all the trouble that others who didn't go to college.		It was an outlet from issues that were going on at home. I come from an alcoholic home, there was always lots of drama. School served a purpose of keeping busy, that's what distracted me, what really kept me sane.
Parental support	20.7%	11.1%	30%	20%
		In my house, it was mandatory to go. It was bittersweet, because there was a lot of stress to get into a good university. My parents were always pushing me to go.	My parents always talked about college. They would say, when you go to college or when you're a professional. So, I always thought about college.	It was very clear from my uncle's perspective that we were here to get an education, to make it in life, and take advantage of opportunities.
			My mom was really big on school.	My mom made me go.
			My parents gave me no other option.	
Parents without degrees	20.7%	22.2%	20%	20%
		My parents didn't go to college, so it was always encouraged in our home. It was never an	My parents didn't finish high school and as refugees from Vietnam, they wanted me to	My mother isn't from here, she didn't have the opportunity to pursue college, so I felt that I

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n =10)	Graduated (n = 10)
		option; you're going to college, period.	finish high school and two years of college.	have the opportunity, why not take advantage of it?
		My family didn't have the opportunities I have. So I wanted to take advantage of what was available. My mom and dad pushed me in the right direction.	My mom didn't finish high school and worked many jobs. I don't want to be like that.	Because of my parents; it was an expectation. They both emigrated from their own respected countries, my dad didn't finish 3rd grade, my mom did a few years of vocational school. Coming to America was a big deal; I had to go.
Prove parents wrong	6.9%	11.1%		10%
		My dad's negativity pushed me. He would say you're just going to drop out of school and have kids like your sister. I wanted to prove him wrong; it pushed me to do better every day. I don't have anyone to push me. It's just me proving to myself and saying I can do more.		My mom hasn't been to college, so college was a financial concern, since we lived on welfare. My mom encouraged us to graduate high school, but didn't push us to go to college because of how she would pay. I had to convince her she would not have to pay.

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses. HS = high school.

Academic discipline. When asked about the level of effort invested in schoolwork and perceptions of being a hard-worker, the following themes emerged: (1) strong work ethic, (2) effort based on class, and (3) minimum/moderate (see Table 9). The responses of two students were not included in one of the three themes. A no major student described her struggles in a college math class and a declared major student was unsure of his type of discipline.

Approximately 44% of LIFG students perceived having a strong work ethic. Students described themselves as hard workers, which included putting in extra time and effort on academic tasks. Several students indicated having to work harder than others because of limited college knowledge and/or skills. A strong work ethic was expressed by 55.5% of no major students, 40% of declared major students, and 50% of graduated students.

Effort based on class was mentioned by 27.6% of LIFG students. Students expressed putting in extra time and effort on academic work based on their interest in the class. Effort based on class was reported by 22.2% of no major students, 30% of declared major students, and 30% of graduated students.

Several LIFG students indicated minimum/moderate to pass (17.2%). For some, the minimum/moderate to pass included earning a "C" average on academic tasks and/or on a final class grade and for others, it included lacking interest in their major. Some students also expressed having limited college knowledge, which they referred to as information about the application process, financial aid, and culture. In addition, a graduated student indicated that becoming pregnant her senior year in high school was the reason she was a minimum/moderate worker. This was the least frequently reported

theme for no major students (11.1%), declared major students (20%), and graduated students (20%).

Table 9

Student Quotations on Academic Discipline Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n =10)	Graduated (n = 10)
Strong work ethic	48.3%	55.5%	40%	50%
		I block off my social life to get stuff done. I'm always reading or doing something school related, which can be a pain in the butt, but it pays off in the end.	I complete my assignments on time and study for exams. I could always be better, but I work hard.	I was a hard-worker. I had the same routine, go to college and return home. I made sure I got a good start in my academic career to get good grades.
		I'm a very hard-worker, I try my best every time and I like to step out of my comfort zone. I'm an open- minded person and really like to work hard.	I consider myself a hard-worker. I feel like I've had to work harder than most because my high school sucked.	I was a hard-worker. I had to work harder to be at the same level as others. I played a lot of catch up and learned at the same time. Just tried to make it.
		Hard- worker. I try my best to put in my best effort and turn in all my assignments; especially my last year of high school. I really had to prepare for college, so I had to work hard. That helped me this year because of my hard work.	I have learned to work hard – harder than in high school and other students. I realized very early that I needed a strong work ethic because I never learned certain skills.	I think I was a pretty hard-worker. I had a pretty strong work ethic. I was labeled as an overachiever, I don't know why. I tended to work ahead, so I can play. I would read several articles or chapters ahead in a book before we had to.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		I am a hard-worker. I am not a procrastinator, I always do my work.	I work hard and if I need to I will pull off all nighters. I take a long time on papers, so I work hard on them.	I worked really hard. I needed to work harder than the average student just to be at their level, being first-generation. Not to sound like a sob story, it was just a matter of fact; I always needed to work a little harder, a little bit longer, and do little bit better.
		I have a very strong work ethic; I need to get everything done and study very hard.		Hard-worker. There are a lot of requirements. If you slack off, you can easily look over them. I needed to stay on top of things, like classes and electives. I tried my very best; I think it paid off.
Effort based on class	27.6%	22.2%	30%	30%
		I know what classes I need to put in the most effort and I always turn in my work. It's the effort. I mean, I know I could go the extra mile and maybe do a little more.	It depends when I go to class and decide if it is a day I need to pay attention and do the work, or don't bother to pay attention, or it's a review so I already know what they are saying.	It would depend on the class and how much work was needed to do well. Overall, I would say I am a hard worker.
				It definitely depended on the class in terms of work ethic.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		a slacker.	I work hard, but I can't in every class; it depends on the day.	It depended on the class, the amount of work I put in; especially, if it's in my major, I work harder.
Minimum/Moderate worker	17.2%	11.1%	My work ethic depended if I was interested in the class.	20%
		I am a moderate worker, I like to get things done on time. For me, it's good and done to the best of my ability.	I am a minimal worker. I know 100% if I'm not fully passionate. Other things I will put in hours. But school, I didn't really know what I want to do. I mean, my major, it's cool and everything, but I'm not ecstatic about it; that reflects the amount of effort I put in.	Minimal, I'm so embarrassed to say that. I had a really traumatizing senior year in high school that affected my motivation; I became pregnant. It was my way of kind of rebelling. I didn't want to be in college, so I did the bare minimum. I wish I would've done better.
			Moderate worker, tend to procrastinate, however I am doing well due to my 3.5 GPA.	Minimal, mainly because I didn't know how to study, didn't know what classes to take, didn't know what I was doing. As time progressed, I worked a little harder because I learned the skills.

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses. HS = high school.

Academic self-efficacy. Academic self-efficacy includes students' self-evaluation of ability and/or probability for success in an academic setting. Two themes emerged: lacked academic skills and strong academic skills (see Table 10). The response of one graduated student was not included because she discussed her strong creative writing skills.

Lacked academic skills was reported by an alarming 51.7% of LIFG students. These students perceived to have limited college-level writing, test-taking, and assignment completion skills. Others reported needing to work harder than their peers on most, if not all, academic tasks. Lacked academic skills was most frequently expressed by no major (66.6%) and graduated students (70%), and least frequently reported by declared major students (20%).

The second theme was strong academic skills and mentioned by 44.8% of LIFG students. Students perceived having strong college-level writing, test-taking, and assignment completion skills. In addition, some students stressed the importance of working hard on academic tasks. Strong academic skills was the most frequent perception of academic self-efficacy reported by declared major students (80%) and the least frequent by no major (33.3%) and graduated students (20%).

Table 10

Student Quotations on Academic Self-Efficacy Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Lacked academic skills	51.7%	66.6%	20%	70%
		Very very difficult. Every single assignment. If a teacher says read two chapters. I will read four or five times to get it. Some classmates, whose first language is English, they just skim through it and know all of it.	I felt like high school did not prepare me to succeed; everything takes so long to finish – and I still get Bs.	I was never a good test taker. Classes that had grades based on tests were difficult. I had to study very hard. I think I did good, not as good as others, I just wasn't that good
		Assignments are easier, but tests are harder; I get nervous. I'm not a very good writer; it takes me a while to think of ideas, read, and proofread.	On standardized tests I would be terrible.	Ok overall. I probably could have tried harder. Or I tried hard and it just wouldn't work for me. I could give it my all and I still was not up to par.
		Test and quizzes haven't been my specialty. I wouldn't say I panic. If I would've taken AP classes seriously, my GPA would be higher. Tests were not stressed in high school.		Writing took really long. I struggled and continue to struggle. For those who it comes easy, I have to do it a week before, take to writing center, edit, and work on it again.
		I was a slacker on homework. I		I would never edit my stuff

Theme	Total % of Students	Representative Quotations		
		No major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		try to do it but I have old parents and I babysit too because they come home late. I like to work in the morning.		before turning it in. Didn't have anything that I was proud of or that I liked. I think I could have done better.
		It was a shock coming to college; my high school work was not like this. I sort of feel successful, but it's definitely been a challenge adjusting.		I had to work harder than anyone else because I lacked the skills, especially in writing.
		I am ok, like on tests I am not good on them but I study my heart out.		On tests, I did pretty terrible. Essays, I had more time to write. I felt prepared before coming, once I got to here, it was like, hey, you're really not.
				I was never a good test taker; classes based on tests were difficult. I had to study very hard. I think I did good, probably not as good as others.
Strong academic skills	44.8%	33.3%	80%	20%
		On assignments, I do well because I'm consistent. I see it on test scores. I'm getting As on assignments and tests.	I perform best on papers because I have always loved writing. I put more effort on assignments. I turn them all in.	I was brought up knowing school more than anything; this helped me on tests So, I have been successful.

Theme	Total % of Students	Representative Quotations		
		No major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		I'm happy with school and rate myself high, especially on papers, I am really devoted to them, I'm stronger in writing.	I was on the dean's list last semester, I do a lot, especially with papers – that is what helps my GPA.	I worked hard. So I performed pretty good on tests, assignments, and papers.
		I feel pretty confident on papers, tests, and assignments.	Papers are my strengths, so I think I do pretty well overall.	
			I like to learn rather than memorize, rather than cram and forget it later. So I do well.	
			For papers and assignments, I did well. That made up for it, I didn't do horrible, but I could've done better.	
			Tests, I would study hard and do well. Writing, it takes me longer but I'm pretty successful.	
			I go to the writing center. I work hard to succeed. I study longer than most, I feel. of my friends.	
			On papers I have done really well. I'm a really good writer. It's all about being challenged.	

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses. HS = high school.

Academic expectations. When it comes to assignments, tests, and papers, students can hold high, moderate, and/or low expectations. Two themes were identified: high academic expectations and moderate academic expectations (see Table 11). All student responses were included in one of the two themes.

The majority of LIFG students perceived holding high academic expectations (69%). Students based their academic expectations on high average grades and attainment of goals, such aspirations of bachelor's degrees. In addition, several students reported putting forth more effort on assignments, tests, and papers than their peers. High academic expectations was the most frequently reported theme for each group (55.5% of no major students, 90% of declared students, and 60% of graduated students).

Approximately 31% of LIFG students perceived having moderate academic expectations. Several students reported beginning college with high expectations, but when realizing the intense demands of college, many had to lower their expectations. Therefore, students indicated wanting to simply pass and graduate from the university. Moderate academic expectations was least frequently provided by each group (44.4% of no major group, 10% of declared major group, and 40% of graduated group).

Table 11

Student Quotations on Academic Expectations Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
High expectations	69%	55.5%	90%	60%
		High. I'm on top of everything, responsible, and not dependent on others. I like getting things done. I stay after class or talk to teachers. What is being expected of me is what I expect from them.	I've met my expectations for some semesters and for others I haven't. I've made Dean's list.. So, overall I hold high expectations for myself.	Throughout my time, my goal was to make the dean's list and I achieved it. I set goals I could achieve. That's how I got through school. Every semester I would try and improve.
		High expectations now, but not when I started high school. I always challenge myself to get an A or a B and if I get a C I just get so mad.	Since I need to get As and Bs, for my scholarship, I hold high expectations. I am hoping to get my bachelors right now and then find a job.	High expectations. I met my expectations through resources, such as TRiO. My advisor was a huge part in reaching my goals. Also family and friends.
		I have high expectations, meaning like finishing college and getting a M.A. and PhD.	To graduate with a 3.6, which is a pretty high expectations. I have managed to stay above a 3.3. I expect it to go up so I can be on the dean's list.	I always hold myself to high expectations, if I don't get an A I would feel like a looser. I would try to keep myself towards getting an A.
		I have achieved my goal. My grades are looking like solid As. If I'm consistent, I will achieve my goals.	I've learned that I need to work harder than others to do well, so I hold high expectations.	I came with a clear goal of what I wanted; staying focus and graduating on time. I was accepted into grad school.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n =10)
		My high expectations mean a lot to me. I have to get grades higher than a B, if I get a C I will freak out, because I want my grades to be good in order to graduate. I am an average student.	I try to earn only As and Bs. It's a lot harder than high school, but the hard work I have put in has lead to these grades.	My goal was to always get As and B+s. I struggled with that, because I was in a field I didn't like. As I changed my major, I started to do very well and met those high expectations; then things started to fall into place.
			I'm set on getting a degree; I think this is a very high goal, especially since my parents did not graduate from college. They had to work hard.	I had high expectations and met them by seeing tutors, joining groups, and meeting with professors. I pretty much did the work and attended lectures.
			I hold myself to very high expectations, I need to.	
			I hold myself to very high expectations. How else would I have made it this far?	
			Moderate to high because I don't need to get straight As, but not ok with Cs. I work hard and get help. So, maybe my expectations are on the higher side.	
Moderate	31%	44.4%	10%	40%
		My expectation is to maintain a 3.0 GPA. My midterms right	A lot of friends either dropped out or transferred. Staying here	I don't think I had any expectations. Didn't really think

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n= 10)	Graduated (n = 10)
		now look as though they are higher than that I had expected and am happy about that.	and graduating was a goal. I think I'm almost there. I just want to finish, don't really care about grades.	about going into college. I knew I wanted to do really well. I don't think I had any lined out or clearly defined.
		It's maintaining As and Bs at the least. I don't worry about the Dean's list. It's not an expectation I set. So moderate expectations overall.		I didn't get all As, you know, but I did do well. Changing from bio to child psych really helped. Once I switched, I was on the level I wanted to be.
		It has been hard adjusting to the workload in college, so I am just trying to stay above water. I do not want to fail and loose my scholarship.		I held moderate expectations because I just wanted to graduate and get the degree that my mom never got.
		Moderate because in high school I held high expectations, got all As. It's different here because I'm not getting all As.		When I started, my expectation was get all As. But after not being on Dean's list the first three years, my expectations went from high to moderate.

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses. HS = high school.

Social connectedness. When students transition to postsecondary institutions, they make connections with peers, faculty, and staff as well as participate in extracurricular activities. Four themes were identified: (1) connected – similar to high school, (2) connected – different from high school, (3) not connected – different from high school, and (4) not connected – similar to high school (see Table 12). All student responses corresponded to one of the four themes.

Connected – similar to high school was reported by 51.7% of LIFG students. Students, who felt connected in high school, also expressed feelings of connectedness with university peers, faculty, and staff. Due to participation in extracurricular activities, most students indicated feeling connected to their high school and the university, which included involvement in student groups, sport teams, and campus events. In addition, several students described positive connections with high school staff, as well as with university faculty and advisors. Connected – similar to high school was expressed by 66.6% of no major students, 60% of declared major students, and 30% of graduated students. Moreover, this theme was the most frequent perception of social connectedness for students in the no major and declared major groups.

Another perception of social connectedness that emerged was connected – different from high school (27.6%). Different from their high school experiences, LIFG students expressed feeling connected to university faculty, staff, and peers. Involvement in extracurricular activities was indicated, by many, as the main reason for their connections. Moreover, students described feeling disconnected with their high school staff, which for some, was attributed to the lack of supportive staff or difficulty connecting with peers. Considering that these students attended a large university, it was

surprising to learn they did not feel connected to their high school. As the result of attending overcrowded high schools, such as the largest public high school in Chicago, it was difficult to make connections with peers and staff. Connected – different from high school was reported by 33.3% of no major students, 20% of declared major students, and 30% of graduated students.

Approximately 14% of LIFG students described their social connectedness as not connected – different from high school. Several reasons were expressed for students' lack of social connectedness. For some, it was due to large class sizes at the university, which limited their ability to make connections with peers and/or faculty. For others, it was the result of living at home and/or having to work full-time jobs. Students' high school experiences were different because of relationships with teachers and/or the small size of their high school. Connected – different from high school was reported by 10% of declared major students and 30% of graduated students, and this theme was not reported by no major students.

Two LIFG students (6.9%) reported feeling neither connected at the university nor in high school. As a result of having to work outside jobs during high school and college, both students, one from the declared major group (11.1%) and the other from the graduated group (10%), reported not connected – similar to high school. This was the least frequent theme reported by graduated students.

Table 12

Student Quotations on Social Connectedness Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Connected – similar to high school	51.7%	66.6%	60%	30%
		I'm getting to know people, everyone is open-minded. I love it so far. I feel connected to staff. In high school, we grew up together, knew each other well. The connections worked.	I'm very connected. I'm pretty connected with faculty. Being involved in a fraternity has helped with peers to succeed here. I was also involved in high school.	I was in a learning community here. I would see peers daily, we had the same classes. It helped build connections with faculty too. I was very involved in high school too.
		I'm very social. I'm connected with staff; I sit outside the office to ask questions. My friend and I came up with an organization, anyone is welcome. In high school; I did a lot of things.	I feel connected to professors, especially now majoring in education. I'm connected to peers because I've been in campus events. This is similar to high school; I was really connected.	In high school, my teachers knew me and made sure I got to college. The general college was helpful and similar. I keep in touch with faculty that wrote letters for grad school. That initial connection was vital.
		I'm in student groups because I'm able to connect with peers. I'm not having a hard time connecting. I	I feel connected. I talk to professors and I'm in student groups. My high school prepared	Very connected with peers; I would build relationships with professors. I would let

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n =10)
		know my professors, they don't see me as another student. This was similar to high school.	me, they encouraged us to participate in extracurricular activities and volunteer.	them know I really enjoyed their class. High school, very similar; I was involved in extracurricular activities.
		It's been easy to connect. I'm joining student groups, like my professors: I get along with them; they're nice. In high school, I knew my teachers and was involved in extracurricular.	I'm connected. I have many friends, even if I live at home. I try to make connections with professors. I went to a small high school; I was involved and knew my teachers very well.	
		I am comfortable talking to classmates. I feel connected with faculty; they have been kind and seem more reachable than what I had thought.	I'm connected now. My TRiO advisor helped me, encouraged me to join groups and talk to professors. I also had a good high school.	
		I am joining student groups. I feel connected with faculty. High school was very similar, I felt very connected because I was very involved.	I feel pretty connected to peers and staff. I'm outgoing and I was the same in high school.	
Connected – different than high school	27.6%	33.3%	20%	30%

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		I feel connected. I know faculty well and talk to them. TRiO advisors too. I don't feel as connected as in high school because I came from a small school. I knew all my teachers at a personal level. We always interacted; that's the difference.	Any opportunities for professors to hear me. I go to campus events, in a Latina sorority; it's how I build connections. These help me feel part of the university. If not, I wouldn't feel connected. High school, I saw my advisor once a year. Here, advisors talk to you about education and career goals.	I was surrounded by people I was comfortable; the African American community. I also felt connected to people from the same background. I could faculty about anything. High school, the connection was not tight; too many students. It depended if the teacher cared or not; you knew which ones.
		I feel connected here, I'm trying to join groups, talk to TAs, or professors. This is different than high school; it was a huge school; I don't know if teachers cared to connect.	I'm connected to people; I'm in student groups. I'm connected to professors in my major and TRiO advisor. This is different from high school – my high school didn't really care.	I attended the largest high school in Chicago; 4,000 kids. Frankly, I thought many peers were naïve. My professors were always available and TRiO helped my connections.
		I feel very connected. I didn't like my high school because the same people did the same thing. I took AP courses and was the only Black person in there; didn't make close friends.		

Theme	Total % of Students	Representative Quotations		
		No Major (n =9)	Declared Major (n =10)	Graduated (n =10)
				there was a disconnect.
Not connected – different from high school	13.8%		10%	30%
			It's hard with 1000 students in Intro Psych. I never talked to my professor. In high school, you see the same teachers for a long time; you got to know them on a personal level. They were there to answer questions.	I was not very connected with peers. I feel like people were pulling me back. I never did group studies. This is different from high school; I had grown up with peers and knew teachers were quality.
				I had an outside job and a small peer group. No activities. It was me working, academics and family. I regret not being involved. I was not connected to the psych program; they didn't connect with students. I felt way more connected in high school.

				I was not connected because I had to live at home and work. This was a huge school. My high school was smaller, I did more activities.
Not connected - similar to high school	6.9%		10%	10%
			Not connected to peers because of lectures, some don't have discussions. Last semester I lived at home, so I felt less connected, I didn't like commuting. In high school, it is about the same in terms of how connected I felt – I had to work during high school and now.	I didn't get involved because I was focused on academics and my job. I wanted to do well. In biology, the administration and advisors aren't that close with their students, so I felt disconnected. It was the same in high school. I was focused on school work and my job.

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses. HS = high school.

Commitment to college. Students' commitment to staying in college and attaining a degree may have a significant influence on their postsecondary experience. Three themes emerged: (1) career/degree goal (2) first one to graduate, and (3) paying for college (see Table 13). The responses of two graduated students were not included in one of the three themes. Specifically, one student reported feeling committed because of college parties and the other expressed seeing life differently after returning from a study abroad experience.

The majority of LIFG students (69%) indicated wanting to reach a career/degree goal and viewed college as a critical step for success. When discussing their commitment to graduating, several students perceived themselves as hard workers. It was interesting to find that all of the declared major students expressed having a career and/or degree goal. Furthermore, a career/degree goal was the most commonly reported theme for each group (55.5% of no major group, 100% of declared major group, and 50% of graduated group).

As a result of having parents without bachelor's degrees, first one to graduate was mentioned by 13.8% of LIFG students. Students expressed wanting to be the first in their family to attain a bachelor's degree and some indicated that they gave themselves no other option but to graduate. First one to graduate was reported by 33.3% of no major students and 10% of graduated students. Also, this theme was not mentioned by declared major students and the least frequent response given by no major students.

Other LIFG students mentioned paying for college (10.3%) as the reason for their commitment to graduating. Some were paying for college on their own, while others indicated receiving scholarships that covered tuition. Paying for college was the least

frequent theme reported by no major group students (11.1%) and was not mentioned by declared major students. Also, 20% of the responses from the graduated group corresponded to this theme.

Table 13

Student Quotations on Commitment to College Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Career/Degree goal	69%	55.5%	100%	50%
		A college education will help get a good career. I can't wait to make my own money and be on my own. I'm excited to be completely independent from my parents; not to be a burden.	Very committed, will be graduating early. My education will help reach my career goals. I hope to start a business, like my grandparents. That's why I majored in business.	I wanted to graduate; I had to. A degree was important; it was a huge stepping stone for me. Just knowing professors that know people in jobs; helped me get a job.
		I am very committed to graduating, for me that is not my final step, I want to go to law school so I have to graduate and get that bachelor's degree.	There is no question about it, I am graduating. It will definitely put me ahead of the person who does not have a college degree when looking for a job.	Very committed to graduating. A college education is more than just getting the right job, its motivating, learning, expanding, challenging your perceptions.
		Graduating. My brother just graduated; I see him on another level. A graduate puts in work, even through tough times.	I'm committed to graduate to get a degree so I can get a good job after college or continue on with more education.	Getting my B.A. means a lot. I want others to know there are scholarships out there. The money is there, just work for it.
		I want to graduate ASAP. I want to make sure I get that diploma and be able to go to graduate school.	I have a high GPA and am looking forward to graduating. I'm committed to finishing; it will help me reach a career.	I wanted was to be in the medical field. To achieve it was through an education.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		I feel committed. It was good to see my sisters graduate. I need to graduate from college. A college education means a lot. You have to have a college degree now to actually have successful job or career.	I'm committed because I work very hard and need to get that B.A. Many never make it.	My family was not connected to the Hmong community. I grew up wanting what white people wanted: big house, big cars, and a white family, like a white wife. I wanted a career that could give me that, so I told my TRiO advisor I wanted to be in finance; a suit guy.
			It's a stepping stone. I know I want a M.A. I can't move forward unless I have my B.A. I'm very committed. I need that degree to get a good job.	.
			It's the only way I can improve my life to secure a job.	
			I've had many opportunities that I can't leave here without a degree – it means too much. I'm committed to graduate. I have a strong GPA, if I continue I can earn a degree.	
First one to graduate	13.8%	33.3%		10%
		It means a lot. Education was not common in my country, so		I paved the way for my family, children, and siblings' kids. It's

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		now that I have it, I have to take it. I will be the first one in college. I cannot dropout, I cannot fail.		an example to peers that you can do it; you don't have to be super smart. It's about working hard and being proactive.
		I will be the first one to graduate from college, my parents did not finish.		
		I'm very committed. It will make my parents proud; they didn't not have much because they didn't get degrees.		
Paying for college	10.3%	11.1%		20%
		I'm not going to stop. I'm paying for college. I can take care of my family, so they don't need anything or anybody. My mom was disappointed in my dad; I can say to her, I can take care of you and make money.		I wanted to finish. There were times when I just wanted to quit, give up. For me, I'm paying this money, why not see these through and finish? Graduating was the only option.
				I was committed due to a full ride, I was going to finish. I felt like I was aimlessly navigating this place, kind of on my own.

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses. HS = high school.

Problem-solving skills. Problem-solving skills refers to the ability to develop strategies and methods to solve academic problems. When LIFG students were asked to describe specific problem-solving skills, three themes emerged: (1) meeting with college staff, (2) writing center, and (2) figure out on my own (see Table 14). The responses of two students were not included in one of the two themes. One declared major student discussed his problems with group work and a graduated student described a situation where he received a good grade on an assignment, even though he never turned it in to the professor.

Meeting with university staff was mentioned by 65.5% of LIFG students. When confronted with an academic problem on assignments, papers, and/or tests, contacting university faculty and/or staff was the main problem-solving method used by students. Meeting with university staff was the most frequently reported theme for each group (77.7% of no major group, 60% of declared major group, and 60% of graduated group).

Another problem-solving skill expressed by 13.8% of LIFG students was reported seeking assistance from writing center staff. The writing center was the least common problem-solving skill used by no major students (22.2%), declared major students (10%), and graduated students (10%).

Similarly, 13.8% of LIFG students reported figure out on my own as their method of problem-solving. Some mentioned searching for answers on the internet or doing nothing to solve their academic problems. Figure out on my own was reported by 20% of declared major students and 20% of graduated students. Also, this problem-solving method was not used by students in the no major group.

Table 14

Student Quotations on Problem-Solving Skills Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Meeting with college staff	65.5%	77.7%	60%	60%
		I talk to a professor about how I have felt about a paper, how disappointed I was. They have explained what happened and what went wrong. That helped, because the professor saw how committed I was to my work.	I am a big solution oriented person, I like to solve problems. It happens quite a bit, I reach out to people that are taking the class or have taken the class or talk to the TAs or professors.	I would seek the TAs and have them explain. A lot of times the TAs are pretty much the ones that do all of the grading. If they could not give me the answer, then I would seek the professor.
		I have emailed the teacher, professor or TA. That's how I have solved my issues so far this year and it's worked out.	I would either ask my TRiO advisor and he would refer me to the right department. I've not had issues with professors.	I would get in touch with the teachers and try to figure it out on my own. I don't see the point just sitting there.
		I volunteer to have the professor pick on me to be critiqued in front of the class. They might say things that I don't like, but at least I'm getting help on it.	The first thing is talk to the TA. I had a short answer essay and compared my answers to the next student and mine was up to par as theirs. So I went back to the TA.	I would sit in front of my advisor's office, doing homework and knock on his door, walk in and say I don't know what this means, can you explain this?

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		I had to sit down with my professor.	I would first find my advisor and if they couldn't, then I would find a professor.	I would go to the professor or ask another peer.
		I make sure to talk to the professor. I was having difficulty on a project because I didn't understand it, so I went to her office hours. I guess by talking to them, they are more willing to talk.	I have been recently trying to go more to professors because in the past I didn't. It has been because my classes were huge.	There's been times when I had to go to my advisor. Teachers were just not accommodating and my advisor would say if they don't turn around he would get in touch with them.
		I had a problem with my science this weekend, so all I did was go into his office hours. I introduced myself, got to know him and he helped me. It was really easy.	I try to meet with TAs mostly, especially I attend study groups. I can get my questions answered there, especially if I don't get an assignment.	The first person I would go to is a professor.
		I usually talk to the professor if I am having academic issues.		
Writing center	13.8%	22.2%	10%	10%
		When I have something difficult, it's usually a paper and so I always go to the writing center.	A lot of times, my friends have suggested the writing center. I usually ask around, like friends, before a professor.	I would always go to the writing center, because for everything else, I can figure out on my own, but not papers.

		Representative Quotations		
Theme	Total % of Students	No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Figure out on my own	13.8%		20%	20%
			I could be more persistent, I kind of just take whatever grade I get and stay with it. I feel like I can't really say anything.	I don't think I approached professors if I had a problem.
			I usually use the internet to figure out the problem, to be honest with you.	I had to deal with it. For science classes, I struggled so much and I put a lot of time and effort into it, but I never went to office hours. So my professor did not know how much trouble I was actually having.

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses. HS = high school.

Acquisition of problem-solving skills. Based on a follow-up question regarding the acquisition of problem-solving skills, two themes emerged (see Table 15): high school advanced courses and learned on my own. The responses of four students were not included in one of the two themes. Two students, one from the no major group and the other from the graduated group, were unsure of how they acquired their skills. A no major student reported learning from an older sister and a declared major student indicated learning from peers in his fraternity.

Approximately 45% of LIFG students reported acquiring their problem-solving skills from a high school advanced course/program. Based on the responses, students mentioned several helpful courses or programs such as: AP courses, College in the Schools (CIS), postsecondary teaching and learning classes (PSTL), International Baccalaureate (IB), and postsecondary enrollment options (PSEO). High school advanced course/program was reported by 33.3% of no major students, 50% of declared major students, and 50% of graduated students.

Several LIFG students articulated learned on my own (41.4%). Students indicated feeling unprepared for college-level work and many blamed their high schools, which for some included AP courses. As a result, several students reported experiencing difficult transitions to the university. Conversely, other students perceived problem-solving skills as a personal attribute that had always been part of their personality. Learned on my own was reported by 44.4% of no major students, 40% of declared major students, and 40% of graduated students.

Table 15

Student Quotations on Acquisition of Problem-Solving Skills Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
HS advanced courses/programs	44.8%	33.3%	50%	50%
		I took AP and PSTL classes in high school; it was like a bridge. They give you a preview of college life. The advanced classes are where I received the skills to do work in college. They also helped set up my career path.	High school was very structured. AP classes were helpful when I got to college. I took AP human anatomy and took it in college and did very well.	At my high school I was in the IB program and we had a really heavy workload. I'm grateful I was in that program because they really prepared me. We were cranking out 5-6 page papers or reading several books a month.
		I made sure to take college courses in high school so I knew how rigorous and how much work it was going to be. My mentality was like, ok, you're going to have to do a lot of work and you're going to have to make sure you have enough time. That helped me tremendously. The college ready program helped me get here. If it wasn't for that, I wouldn't be here. They taught me skills because people in my family	I took PSTL courses in high school, so I felt very prepared. They showed how much to read, write and study once in college. Now, I feel ten times more prepared. Without PSTL, I don't think I would've succeeded. Some of my classmate struggle now, because they don't know how to write, what questions to ask and lack university level knowledge.	Starting college, I felt prepared. I learned it was about thinking critically. The bridge program gave me a head start and built on my sense of support and community. I took PSEO in high school and courses at the U. I had great mentors. Because of all of that, it helped me in school and contributed to my success.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		family did not know that much about college or whatever.	My high school advisor showed me a lot and helped get me into the U. She told me what classes to take in high school that would help me in college.	High expectations. I think I was relatively prepared.
			I went to a really good school. There was nothing specific that helped me get skills.	I took CIS, commanding English, and got college credit for that. CIS prepared me for college coursework.
			I was in a program for first-gen kids; it was really helpful and taught me good stuff for here.	I learned in high school, every class prepared us really well.
Learned on my own	41.4%	44.4%	40%	40%
		I learned them on my own throughout the years in school.	I have kind of figured things out on my own.	I would Google it usually.
		I have always had them. I guess or I've learned along the way.	I took AP classes in high school but they did not teach that much. It was sort of a joke.	AP classes sort of prepared me. I thought it was college work and would be ok. I thought I was prepared; I actually wasn't, so I had to learn things on my own.
		I have had to figure everything out this year and, so far, it's gone well.	I have always had these skills to solve problems and talk to teachers – I am pretty social.	Learned on my own by going to faculty and my advisor throughout college.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		I don't think I got that much from high school – it was really hard transitioning here. I don't think I had the important skills and have to learn the hard way. Like with bad grades.	When coming to college, I didn't feel very prepared. My high school was very different from college. It was an extreme change. I kind of expected a lot of reading; I was not completely sure. I didn't really know what I needed academically.	I didn't feel prepared at all. It was all new: new campus, people, environment, teachers and classroom set up. High school didn't prepare me. It's not so much the coursework, but more about how you learn. If you are not motivated to learn, then you're not going to get a whole lot.

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses. HS = high school

Time orientation. When it comes to academic work, LIFG students were asked to describe their time orientations. A past orientation refers to focusing on or thinking about events that have occurred in the past; a present orientation includes focusing on the here and now; and a future orientation refers to focusing on the future. In addition, students were asked if their specific time orientation helped or hindered their experiences at the university. Five themes were identified: (1) future – helps, (2) present – hinders, (3) present and future – both, (4) past and future – both, and (5) present – helps (see Table 16). All student responses corresponded to one of the five themes.

Approximately 38% of LIFG students indicated future-helps. Students expressed that a future orientation was helpful when completing academic tasks. For instance, several students perceived that a future orientation helped them manage their time and plan ahead. Future – helps was reported by 44.4% of no major students, 40% of declared major students, and 30% of graduated students.

Present – hinders was reported by 20.7% of LIFG students; a present orientation hindered their time at the university because it lead to procrastination. Present – hinders was mentioned by 11.1% of no major students, 30% of declared major students, and 20% of graduated students.

Present and future – both was reported by 20.7% of LIFG students and includes perceptions of both present and future orientations. Students indicated that both time orientations helped them live in the present and plan ahead; however, a present orientation often led to procrastination. Present and future – both was expressed by 22.2% of no major students, 20% of declared major students, and 20% of graduated students.

An interesting finding among LIFG students was present – helps (10.3%). Students indicated that a present orientation helped them to live in the moment. A present orientation was beneficial because they were able to learn the content during class lectures. This theme was expressed by 11.1% of no major and 20% of graduated students, and was not mentioned by declared major students.

Past and future – both was mentioned by 10.3% of LIFG students. Some students indicated reflecting on past experiences and others avoided changing their method of completing academic work. This theme was equally seen across the three groups: 11.1% of no major students, 10% of declared major and graduated students. Past and future – both was the least common time orientation expressed by students in the declared major and graduated groups.

Table 16

Student Quotations on Time Orientation Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Future – helps	37.9%	44.4%	40%	30%
		Future-oriented. I plan things out. Say maybe it's an assignment that's due in a couple of weeks. I probably do it the week before and work on it until that day. It helps, then I can relax.	I am very future-oriented. I have a paper due next week and it's already done. I also work well under stress; I always finish the assignment. It has put me ahead of the game and it leaves time for friends.	I'm future-oriented, always thinking what's next. Thinking about a paper, who's going to write it last minute? Not [participant name]. Last minute, you're not able to exhaust all your resources.
		I'm a future person, live for tomorrow. I don't do things in the present. It helps; I don't procrastinate, I always do my work. It just pays off.	I am future-oriented. You have to be to succeed here. I learned that once I got here. I wasn't like this in high school. It helps me keep good grades and plan.	Future-oriented, I make plans. I have to plan. It helped me get through school. I would think about the light at the end of the tunnel - having a great job.
		I am future- oriented, helps me so much because it helps me organize everything and not do things last minute.	I am very much future-oriented. I will try and plan out every assignment and especially papers. It helps!	Future. I always think I need to get this done so in the future I am not stressing about it. It's helped me be proactive.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		I am totally a planner – I can get pretty crazy, but it helps me stay organized in the long run. So many assignments to do.	I plan out everything. I guess it makes me future-oriented. I have to work harder than others; it helps keep my head above water.	
Present – hinders	20.7%	11.1%	30%	20%
		I am present-oriented. I am a big procrastinator. I will write stuff down, but then I wait until the last minute. I try to check things off my list but I don't have class on Fridays, so I usually leave everything for Friday.	I'm present. I think about what I have due today. I don't think too far or what I have due in a few weeks. It hinders; there are times when you need more than the night before to study or complete an assignment.	Present oriented. I worry about what will come next later. But, it hinders; I have a difficult time planning. I've always been working on this.
			I'm present-oriented mostly. I am not the best at planning out my day. When I do plan, it makes me anxious. Overall, it has hindered because I procrastinate about work.	I do things last minute, so I'm present-oriented. I do things without thinking about the future. My time management skills are terrible. That's where I've been hurt the most.
			I am present-oriented. I think about what's going on now. There is so much I cannot control, like my life. It's hindered; I procrastinate.	
Present and future – both	20.7%	22.2%	20%	20%

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		I am both present- and future-oriented. I live in the present, mostly but need to plan for the future. I have to work a job and I need to plan for papers. It definitely helps and hinders.	I'm a fairly spontaneous person, but future-oriented. I am in between present and future. It has hurt and helped. I do assignments one at a time instead of planning out my week. It has hurt me, but made it easier for me to be flexible. I can be social.	I have goals that I am working towards, but I try to be realistic about the task at hand. I don't get so engulfed that I forget I am working towards this bigger picture. I try to stay in between, otherwise, I get lost.
		I need to be present and future at the same time because I have so many things going on that I can't plan for everything. It helps because I can stay sane but it hinders because I am not very organized.	I am future- and present- oriented. I think and planned ahead. This has helped. I write everything down. It has made me more responsible and organized. But because I write everything down, I freak out when I see how much I have to do and it stresses me out; I get a stomach ache.	I am future-oriented but also tend to do things last minute and can procrastinate. I planned things ahead of time. I would use a planner, make sure to get things done, but still procrastinated. So it helped and hindered.
Present – helps	10.3%	11.1%		20%
		Present-oriented, in the now. I try not to think a lot in the future. I have goals in the future, but I'm young and have plenty of time. Live in the present to make sure I do well right now and seeing where it's going to take me. I have always		I am all in the present. I don't reflect enough on past to really fix to make myself a more effective and efficient learner. I know what works and what doesn't. I'm all in the moment. I'll put off things even when I

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		been good at no stressing and worrying about what is due now.		should've planned. Just don't do it. It has helped because when I would sit in a lecture, I would absorb everything.
				Present-oriented. I procrastinate. I plan, I write down things in planner but the night before I am like, crap. I don't actually do it. It's mostly helped me learn things right away or quicker.
Past and future – both	10.3%	11.1%	10%	10%
		I'm past and future. I can't wait to be on my own; have that job. Past, because I have always done work the same way and that's how it will always be. I think it helps, like time management. I'm OCD. It has hindered because I do not leave time for myself anymore. I don't have time to go out.	I am both past- and future-oriented because I have kind of done things a certain way but I also plan. I think it both helps and hinders because I can plan but if something isn't working, like the way I study, I don't have time to change it.	I am past and future-oriented; I can procrastinate. I plan things ahead of time too. I would use a planner, make sure to get things done, but still procrastinated. It's good because I can reflect on the past and also move forward.

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses. HS = high school.

Conception of ability. When asked about the role of ability and whether it can or cannot be changed, virtually all LIFG students believed that ability can change with effort (96.5%). Students perceived that their academic success was mostly due to working hard. In addition, several students expressed having to work harder than others on academic tasks. Specifically, they needed to put forth extra time and effort in order to be successful or at the same level as their peers. Only one student from the graduated group believed that ability cannot change (3.4%) and mentioned that at a certain point, a person's ability to learn stops. All of the student responses were included in one of the two themes that emerged (see Table 17).

Table 17

Student Quotations on Conception of Ability Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Change with effort	96.5%	100%	100%	90%
		I think ability can change. It depends on how committed you are. If you have the motivation to do it, you will do it. I'm the kind if I really put my heart, soul, mind into it, I will get it, eventually.	I'm so jealous when I can see someone retain information so quickly. At the same time, the way information is taught can influence how you understand things and how a person learns. So I am leaning towards having to put in more effort.	Ability can change with more effort. If you have the tools, you're able to do it. Sometimes you don't have that upper hand to succeed in this system. Like you're not used to the way homework is done, structure of the class, or vocabulary you're supposed to use.
		Putting in work will change your ability. In Biology, I'm doing well, putting in the time in meetings and just staying on top of everything. My midterm turned out good and I was surprised, to be honest.	I think ability is something that can change by trying a lot. Personally, I try and try until I understand it. Kind of like science, I hate science, but I am trying. I think I'm one of those persons that try hard.	Ability can change by amount of effort you put in. Mine has changed, perception of myself has changed. Before I used to think, I can't do it because I'm not smart. But the more practice, more time, I can do it.
		It's about how much effort you put in – I work very hard.	Ability can change depending on how much effort you put in.	It is about how much work you put in.
		Effort can change – it's how dedicated you are in succeeding.	Ability can change by putting in more effort.	Ability can be changed. If you put your mind to it.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		Effort can change. Students who don't think they can change are not confident. Coming to college, I didn't know if was going to be able to read 50 pages a day, study more than 1-2 hours a day. I am doing it just fine.	By putting in effort, like working hard, your ability can change.	There are some people that are very very smart but don't put in effort and get results. You can be average intelligence and if you want something you can put in the effort and get results.
		Ability can be changed by putting in more effort. You have to work for things and struggle. I hear that from my dad, saying how hard he worked in school. I understand now and don't want to take anything for granted; I feel fortunate. I know why he was so tough on us. College is not easy; it is not supposed to be all fun and games.	I have had to work hard over the years and have seen some success and some failures. Overall, if I do not give up I will do the best that I can. So I think ability is based on effort. I could have given up.	I think it can definitely change. Time changes you, experience changes you. There are times when I think, will I ever be a great writer? These high level skills or will I always struggle? With effort, you can really gain skills. It will take time, you need to make it a habit before it becomes part of your character. It will not be over night.
		I think ability would change if I added more effort to it.	Ability can change with effort.	It is totally how much effort you put in.
			It can change; it's about how much effort you put in, I think.	I am not a huge researcher or writer, but I don't think my abilities are lacking. I just need to put in more effort.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
			It depends, if you work hard than you can succeed. But, if you choose to be lazy, than nothing is going to change unless you are gifted or something.	I know there are people that don't like college, they don't want to go. I honestly think I'm not a super smart person, I can definitely tell you that. But, I think you can really work hard and push yourself and make yourself. You can do a whole lot more if you are dedicated because you work so hard.
Cannot change	3.4%		It can change with effort.	10%
				I read that beyond fifth grade, if you have not mastered the fundamental skills, you regress in learning or stop. Yes, if you tried hard you might get it a little, but I think at a certain point in life, your ability to learn just stops. I believe that with my math, science and language skills. I was not immersed early on; it made it difficult to learn. Just move on.

Anecdotal influential psychosocial factors from withdrew students. Although the responses from the two students who had withdrawn from the university were not included in the analysis, their responses provided valuable anecdotal information. When asked about reasons for attending college, one student mentioned it was due to having parents without high school degrees. The other student indicated wanting to take advantage of educational opportunities that were unavailable to her and her parents in Vietnam.

With respect to perceptions of academic discipline, one student perceived being a moderate worker and "did the work to get through class", while the second student perceived being a hard worker. Both students reported having low academic self-efficacy, for example, one stated: "I did ok on tests; no one taught me how to study". Similarly, the other student mentioned that she would "study the wrong thing or in the wrong way".

In terms of academic expectations, one student perceived having moderate expectations, stating "I would get Cs or Bs, because I knew I was not smart, so just as long as I could pass the class". The second student perceived having moderate to high academic expectations. When asked about their social connectedness, one student indicated feeling connected to peers, but still found it difficult to connect to the university environment because she lived at home. The other student did not feel connected, particularly with professors, indicating "professors helped the favorite students that could achieve more, but not someone like me that is not smart." When confronted with academic problems, one student indicated asking her parents and the other student stated "one time I emailed a professor".

With respect to time orientation, one student described living in the present and the second student perceived herself as past- and present-oriented, saying "what I do now, I hope it will benefit the future. I don't like to make plans for the future because they usually don't work out". Also, both students perceived that ability can change with effort. Specifically, one student stated "it depends on how much you work for it".

Both students who had withdrawn from the university perceived having low academic self-efficacy that was based on their performance on academic tasks, difficulty connecting with peers and faculty at the university, and believed that ability could change with effort. However, they had different reasons for attending the university, types of academic discipline, levels of academic expectations, methods for solving academic problems, and types of time orientations.

Research Question 3: How do Perceptions of Influential Contextual Factors Differ among the Groups?

Contextual factors are aspects of the students' environment that shape their persistence. In response to this, the following contextual factors were addressed in the interviews with LIFG students: (1) college-going-culture, (2) postsecondary expectations from high school staff, peers, and parents, (3) supports for learning, and (4) supports needed. Based on the qualitative analysis, themes emerged within each contextual factor.

Similar to psychosocial factors, representative quotations are provided in all tables that were determined by Creswell's (2009) suggestion to identify themes by expected, theoretical, surprising/unanticipated, and unusual. Furthermore, responses that were not included for each theme are also addressed. In addition, frequently reported themes are highlighted and are based on a decision point of 50% or higher of responses

from each group. Least frequently reported themes are provided based on a decision point of 33.3% or less of responses provided by each group.

College-going-culture. A college-going-culture includes a challenging high school curriculum and the availability of financial aid information, scholarships, and acceptance criteria from high school staff, peers, and family. Moreover, a college-going-culture is a high school environment that holds all students to high postsecondary expectations. Three themes emerged: (1) college for all, (2) for students interested, and (3) for students in advanced courses/programs (see Table 18). All student responses corresponded to one of the three themes.

Approximately 48% of LIFG students described their high school as having a college for all environment. Many students reported having positive high school experiences that included teachers with high postsecondary expectations. In addition, students indicated being informed about visits from college/university representatives and many reported receiving help from staff with the postsecondary application process. Due to their small high school, some students indicated the size of the school as another reason for the college for all environment. College for all was the most commonly reported environment by no major (77.7%) and declared major (60%) students, and the least frequent environment for graduated students (10%).

For students interested was reported by 27.6% of LIFG students. Several students expressed that not everyone in their high school was provided with college knowledge and some perceived a lack of support from high school staff. For students interested was expressed by 11.1% of no major students, 20% of declared major students, and 50% of

graduated students. Also, this theme was the most frequent theme for the graduated group.

Approximately 24% of LIFG students indicated for students in advanced courses/programs. Students mentioned that college knowledge was mainly provided to students in advanced courses and/or in college readiness programs. Without these courses or programs, many stated they would not have made it to university. Advanced courses/programs was reported by 11.1% of no major students, 20% of declared major students, and 40% of graduated students.

Table 18

Student Quotations on College-Going-Culture Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
College for all	48.3%	77.7%	60%	10%
		My high school always talked about college; it was really annoying. We had three presentations every year that talked about college. My high school really helped me because it made me think about college and what I wanted out of life.	I was very blessed to go to my high school. They placed a high value on going to college. A high percentage of people go to college from my high school. It is kind of just the culture around there, it's not are you going next year, but where are you going next year?	My high school was really small and so everyone was very supportive; everyone knew everyone. And so, everyone knew where you were going to college.
		My school was known for the highest ACT and SAT scores. I felt like the school thought we could all do it. They were very supportive.	I had teachers that were very encouraging and helped me get into college. And, it was also a small school, so that helped.	
		I was fortunate; my high school was all about college, which one are you going to and how can we help?	We had college speakers come and tell us about college; what schools were there, the benefits of going, and what it brings to your future. CIS prepared me.	
		They focused on college. We were	My high school had a college for	

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		given information on how to apply to college and what was expected of us to get into college	everyone. I was able to get a lot of information about college.	
		My high school prepared students; connected with them, especially during senior year. They did all in their power to make students go to college. It helped that it was a small school.	I had so much information and supportive teachers; many wrote letters of rec. I knew since freshman year what I needed to do to go to college.	
		My school held everyone to high expectations and college information was available to everyone.	I was able to talk to people from colleges, my high school was big on that. They had a college center where I could get help to fill out applications.	
		There were college fairs; just here if we had questions. Our teachers were always sure to help. If you were falling behind, they actually helped you even more.		
For students interested	27.6%	11.1%	20%	50%
		We never had information; we had to find it on our own. A teacher told me that college was for those interested in it.	They left it up to me. We had to search for information and set up meetings with counselors. Colleges visited, teachers talked about it, but	A counselor was there for three days. When I was there, I didn't hear much about opportunities in college.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
			they were not like, are you going to college?	My counselor mentioned it. He had too many students. It was one of those things you seek on your own.
			It was for students interested in college. You had to find information about college, like applying and credits needed.	I got along with my counselor; we talked about being ready, test scores, and college. But my school was not making sure everyone got into college but resources were there.
				I had to ask about college information. I didn't know how to apply. I didn't get any support in high school. I had to seek outside help to fill out applications. Never did college visits, had no idea what that was; it was all foreign to me.
				It depended on connections. Working in the advising office, I knew how to get info; not everyone knew as much as me.
For students in advance courses or programs	24.1%	11.1%	20%	40%

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		The only reason I went was because I got information from my AP class; I think we were the only ones that got this information. It was kind of sad.	I was in a program for certain students. I received so much information and encouragement to go. My family did not know much, but wanted me to go.	I was in Admission Possible; it was great, they required us to apply. They made us be well-rounded, provided help, waived fees, looked at essays
			The resource center was available for anyone. They had applications for college and scholarships. The only reason I knew was through my MEP advisor. Students were not informed, never brought up. I would tell my friends; they knew it was an office with books.	It was for honors and AP kids. They were offered resources, maybe teachers thought we were more inclined to go.
				They talked about it in certain classes, wish it would have been more.
				The only program was Educational Talent Search. I didn't know about college. My mentors helped. I didn't have anyone else to point me in the right direction.

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses. HS = high school. MEP = Multicultural Excellence Program

Postsecondary expectations. When considering postsecondary, students can be greatly impacted in high school when they are held to high academic expectations. In response to this, students were asked to describe the expectations held by high school staff, peers, and family members regarding a postsecondary education.

High school staff's postsecondary expectations. High school staff consists of teachers, advisors, and other school personnel (e.g., guidance counselors, secretaries). Three themes emerged: (1) high staff expectations (2) depended on class/teacher, and (3) low staff expectations (see Table 19). All student responses corresponded to one of the three themes.

The majority of LIFG students perceived being held to high postsecondary expectations by their high school staff (69%). When high school staff members addressed postsecondary education, students reported receiving guidance, encouragement, and application information. High staff expectations was the most commonly reported by each group (66.6% of no major, 70% of declared major, and 70% of graduated group).

Depended on class/teacher was reported by 17.2% of LIFG students. Some students discussed receiving information mainly from advanced courses, while others indicated that postsecondary expectations were not consistent among high school teachers. Depended on class/teacher was reported by 22.2% of no major students, 20% of declared major students, and 10% of graduated students. Also, this theme was the least frequent postsecondary expectation reported by graduated students.

Approximately 14% of LIFG students perceived having teachers who held low postsecondary expectations. Students mentioned that college was never discussed by

their high school teachers or staff. Some reported attending schools that just wanted them to earn a high school diploma without focusing on plans after high school. Low staff expectations was expressed by 11.1% of no major students, 10% of declared major students, and 20% of graduated students. In addition, this was the least frequent theme reported by no major and declared major students.

Table 19

Student Quotations on Postsecondary Expectations of High School Staff Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
High staff expectations	69%	66.6%	70%	70%
		Everyone in high school was always talking about college. I would say they had high expectations.	The teachers held very high expectations and would say, you need to get good grades if you want to go to college.	My teachers and high school staff had very high expectations about college.
		High expectations. I had older sibling that graduated and one studying abroad in college. So I have a lot to live up to.	I had a good reputation in high school grades, so each teacher expected a good outcome from me, more than others because they knew what I was capable.	I had teachers that were so supportive and were always asking me, when are you applying or where are you going? Do you need any help? I was really lucky.
		High expectations about going to college.	My teachers and advisors held high expectations about college.	They had very high expectations for us.
		I had a great advisor and great teachers that helped me get into college. They also told me what classes to take.	My high school teachers and especially counselors held high expectations; they were helpful with college stuff.	I was a good student. They had high expectations for me, based on my performance, attitude and behaviors.
		High expectations, not to everyone.	High expectations. I was a good student, had a high GPA. But not the same for others.	They were high for me but not necessarily for everyone else.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		Held to high expectations by high school.	My teachers had high expectations. They would provide a lot of information about college, scholarship, financial aid; it was great.	My teachers expected quality work; they would talk to other teachers and say, 'oh you're so lucky, you're going to get a pretty good student'. It was good to have that reputation.
			We were held to very high expectations in high school. There was always talk about college and the next step.	Teachers' expectations for peers would vary; I would slip up on a paper, the teacher would ask me what's going on? With others, you would not see them getting the attention.
Depended on class/teacher	17.2%	22.2%	20%	10%
		I don't think everyone heard the same about it; different teachers held different expectations.	It depended on the class and teacher.	High for the students that performed well or in higher level classes.
		For ID classes, the teachers were very vocal about going to college, they helped write college essays, talked about it. In regular classes. I didn't learn more about college.	When I was in the AP class, the teacher would have high expectations about college and not the teachers in my other classes.	
Low staff expectations	13.8%	11.1%	10%	20%

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		I had some with low expectations. That's not right, because it's their job. You need to say 'OMG my teacher is expecting a lot from me because they I know I can do it'.	They were low. My cousin and I were taking a U.S. constitution class and the teacher, I still remember her name, told him that he would never make it to college. The teachers had low expectations for us. There was no incentive for us to go on; for our generation to get an education.	In high school, a concern was having me graduate high school and not so much college.
				Low, they never mentioned anything about college to seniors and if they did maybe I was gone that day. Maybe I missed that.

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated.

High school peers' postsecondary expectations. Students were also asked about the type of postsecondary expectations held by their high school peers. Three themes were identified: (1) high peer expectations, (2) low peer expectations, and (3) depended on class (see Table 20). All student responses corresponded to one of the three themes.

Approximately 48% of LIFG students reported their peers to hold high postsecondary expectations. Several students mentioned that they made an effort to surround themselves with peers that held high expectations about college. High peer expectations was expressed by 55.5% of no major students, 50% of declared major students, and 40% of graduated students.

An alarming 34.5% of LIFG students reported having peers with low postsecondary expectations. Students indicated that their high school peers did not discuss postsecondary options. Also, some mentioned having friends that became pregnant, experimented with drugs, and/or dropped out of high school. Low peer expectations was expressed by 33.3% of no major students, 30% of declared major students, and 40% of graduated students.

Depended on the class was reported by 17.2% of LIFG students. Peers postsecondary expectations were based on the type of high school class; many students mentioned having friends with postsecondary plans in their advanced classes and ones without plans in other classes. Depended on the class was least frequently reported by each group (11.1% no major students, 20% declared major students, and 20% graduated students).

Table 20

Student Quotations on High School Peers' Postsecondary Expectations Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
High peer expectations	48.3%	55.5%	50%	40%
		My peers were determined; they knew exactly what they wanted from the beginning, like elementary. They were a big push on going to college. Just being around them and hearing them talk about college got me excited.	I hung out with a good group of guys that played sports, almost all of my friends went on to college.	Most of the friends ended up going to the U. I was very involved with people who had direction in terms of where they wanted to go and what they wanted to be.
		High expectations in terms of going to college teachers and staff.	I tried to surround myself with people that knew about college so they could help me out and motivate me. I guess it worked.	They were similar, a lot of them wanted to go to college, that was the goal. That's why I was friends with them.
		Pretty much all of them went to college.	High, I hung out with smart people, or at least I tried.	A lot of them did want to go to college, many were expecting to go.
		High expectations, except for those that gave up.	My friends had high expectations; we all went to college.	There were peers that had low but mostly high expectations.
		They had high expectations.	They had high expectations.	

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Low peer expectations	34.5%	33.3%	30%	40%
		Low, but I turned the negative into a positive. I will show you that I can do it.	The majority of people didn't go to college. There were many road blocks for students. Your environment has a lot of impact on how you do things.	My friends did not talk about college; it was more about making money after high school or some didn't even finish high school.
		In high school, a big issue was pregnancy; mostly Latinas. It was sad. I had two friends that got pregnant during sophomore year. One didn't graduate, the other one still has a semester left. I try to help them to not be a statistic.	College was never spoken within my group. Most of my friends were Mexican; they would use the term "fresa" to describe me. It means a preppy Latina, strawberry, someone who does well in school.	People talked about college, some had kids and were into drugs. It was hard to see college for some of my peers when they had so many other things going on in their lives.
		A lot of my friends did not discuss college at all.	I had friends with academic expectations, but not as high as mine. Some got negative attention from others. I listened to the positive.	Low, we never talked about it. I found information from teachers.
				Low, some with high, but mostly low.
Depended on class	17.2%	11.1%	20%	20%

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		High in the ID classes, low in the regular classes.	From class to class, students felt different about college. I had friends in AP classes that were all planning on going to college, but in regular classes, there were friends that did not plan on going.	I had friends that were planning on going but I also had ones that did not graduate high school. They definitely were not in hard classes. In high school, they were not into college. But when I took PSEO, I met students who were interested in college that I did not know before. It was nice to be around students who cared about going to college and that's how I learned about the importance of going.

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated.

Parental postsecondary expectations. When students were asked about what type of postsecondary expectations were held by parents or family members, three themes were identified: (1) high parental expectations, (2) low parental expectations, and (3) moderate parental expectations (see Table 21). All student responses corresponded to one of the three themes.

The majority of LIFG students indicated having parents that held high postsecondary expectations (79.3%). Despite having parents with low levels of education, many students reported receiving constant encouragement from them about pursing college. Some students also described how their parents gave them no other option – they were going to college, period. High parental expectations was most commonly reported by each group (no major 77.7%, declared major 90%, and graduated 70%).

However, some LIFG students did indicate growing up with parents that held low postsecondary expectations (14%). Limited knowledge regarding the cost of tuition, lack of interest in their child's education, and alcoholic parents were some reasons provided by students for their parents' low postsecondary expectations. This theme was expressed by 11.1% of no major students and 30% of graduated students. Also, low parental expectations was least frequently expressed by graduated students and was not reported by declared major students.

Moderate parental expectations was also mentioned by 6.9% of LIFG students. Several students perceived having parents that were supportive of whatever decisions they made apply or attending the university. Others indicated that their parents did not push them in any particular direction. Moderate parental expectations was reported by 11.1% of no major students and 10% of declared major students. Also, moderate parental expectations was least frequently reported by declared major students and not expressed by graduated students.

Table 21

Student Quotations on Postsecondary Parental Expectations Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
High parental expectations	79.3%	77.7%	90%	70%
		My parents held very high expectations. It was stressful, but good to have that push. It's a push towards reality; you need good grades to graduate.	I was blessed that both of my parents wanted me to go college. They would say to get good grades in high school so you can go wherever you want.	High expectations. My father would say if I got a B he would say there is always room to get an A.
		High expectations.	Very high expectations.	High. Very high.
		High expectations. I have an older sibling that graduated and one studying aboard. so I have a lot to live up to.	High, encouraged me to go to college. My mom would say that there is no question, you are going to college.	They had high expectations, being the oldest child, my mom had high expectations.
		There was no other option because my mom did not go, so I was definitely going.	My older brother went and so my parents held me to just as high of expectations.	Without a doubt, my parents had very high expectations.
		I had to go. So, high ones.	They were high.	High expectations.
		They were high when it came to college.	They had high expectations.	They had high expectations for me, for sure.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		Pretty high, my mom always said I had to go to college, no if, ands, or butts.	They held very high expectations about college.	They had high expectations
			My mom did not go so she was really big on me going. I did not really have a choice.	
			They had high expectations.	
Low parental expectations	13.8%	11.1%		30%
		My dad had very low expectations about college. He did not think I would finish.		My mother did not encourage me or my siblings because she did not want to pay for it.
				My parents did not really care what I did.
				Like I said, my parents were alcoholics, so they didn't tell me to do anything.
Moderate parental expectations	6.9%	11.1%	10%	
		My parents really didn't push me, they said we support whatever you want to do. My parents were really chill, so I say they had moderate expectations.	They were fine with whatever I did. So moderate.	

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated.

Supports for students' learning. Supports for students' learning are perceived supports and resources that were helpful in LIFG students' transition from high school to the university. See Table 22 for a list of supports identified per student and per group; most students shared more than one helpful support. In response to this, percentages were not calculated. Across the sample, high school staff was identified by a majority of LIFG students as a support for their learning and peers were rarely expressed as a support.

In the no major group, most students expressed high school staff as a support for their learning. For example, a no major student described having a college for all environment:

> The culture in my school was the biggest support in terms of getting me where I am. My school brought in people who shared personal stories of going to college or persons that wished they would have gone to college; that was very influential. Also, teachers showed the statistical aspect of it too. For example, if you didn't go to college, this is how much you would be making and so on. And showing comparisons of people who go to college and people that don't was all so very powerful.

This student was provided with concrete examples of the benefits for attending college by his high school staff. College resources, professors, and peers were rarely mentioned by no major students and student groups was not expressed as a support by this group.

Conversely, of the majority of declared major students indicated student groups as a helpful support for their learning. One student stated "La Raza [student group] would hold study nights, which was very helpful and you can print for free too"; this student was able to find support from a student group that provided beneficial resources. It was surprising to find that only one declared major student indicated professors and college advisors as a support for their learning.

Considering that the students had graduated from high school about four years ago, it was surprising to find that the majority indicated both high school staff and college readiness program as influential supports for their learning. A graduated student stated, "talking to the teacher directly and having her show me, not just explain it to me, was helpful". Another graduated student stated "admission possible helped me, the staff wrote great recommendations, were really accommodating. I really appreciated their support. If you wanted to better yourself, they were there for you 100%". In addition, student groups was identified by only one student and peers, as a support, was not mentioned.

Table 22

Identified Supports for Students' Learning by Group and Student Number

		No Major									Declared Major										Graduated									
		3	4	5	16	17	18	20	28	29	1	2	6	12	22	23	24	25	26	27	7	8	9	10	11	13	14	15	19	21
Supports	Total																													
HS staff	17	X	X	X	X	X		X			X			X			X		X				X	X	X		X	X	X	X
Transition program	14	X			X					X		X		X	X				X		X	X	X		X		X		X	X
Parents/ Family	10			X	X	X	X						X			X		X	X			X		X						
College resources	7				X							X						X					X	X			X	X		
Advanced courses	7				X				X					X		X					X	X			X					
Professors	7					X														X			X		X		X		X	
Student groups	7										X	X			X		X		X	X						X				
College advisors	5	X						X												X			X	X						
Peers	3	X									X						X													

Note. Several students provided more than one support for their learning. HS = high school

Supports needed. LIFG students were also asked about supports needed during their journey from high school to the university. See Table 23 for a list of supports provided per student and per group; most students reported needing more than one support. In response to this, percentages were not calculated. Across the sample, the majority of LIFG students expressed needing college knowledge and a few expressed needing career knowledge.

The majority of no major students indicated that, so far, they had received adequate support. One student stated, "I have gotten everything, especially that extra push that I have been getting at the university". Only one student indicated academic support and career knowledge. Also, better high school was not expressed by this group.

Most declared major students expressed needing college knowledge and organizational skills. One student commented about needing both supports:

> A freshman or sophomore study group, skill session, where they talk to you about how to manage your time, and not to study for an exam for the night before. And so, if I hadn't developed that sense of procrastination and having more confidence in my ability, I probably would have done better further down the line. Now it's almost second nature to put things off. I had to transition from a high school that did not teach me anything about college to an environment that you were supposed to already know everything about it.

This student appeared to have a difficult transition; he expressed that his high school did not prepare him and the university expected him to already know how to navigate through it. Similar to the no major group, only one declared major student indicated needing academic support and career knowledge.

College knowledge was also identified by a majority of graduated students. Several discussed needing college knowledge for themselves as well as for their parents:

> I would have wanted my mom to know more about college. Because her opinion does matter for me, especially at this age. At that time, she was promoting going to work more than going to college. Having my mom understand that I could have financial aid and provide her with resources would have been nice.

In addition, none, organizational skills, and career knowledge were rarely indentified as a support needed by graduated students.

Table 23

Identified Supports Needed by Group and Student Number

		No Major									Declared Major										Graduated									
		3	4	5	16	17	18	20	28	29	1	2	6	12	22	23	24	25	26	27	7	8	9	10	11	13	14	15	19	21
Supports	Total																													
College knowledge	12	X				X					X	X		X					X	X	X				X	X	X	X		
Organizational skills	8				X				X				X	X			X	X	X							X				
None	6		X	X			X	X		X														X						
Better HS	5														X	X				X		X	X			X				
Academic support	6				X								X								X								X	X
Career knowledge	5				X								X																X	

Note. Several students provided more than one support for their learning. HS = high school

Anecdotal influential contextual factors from withdrew students. As previously stated, the responses from two students who had withdrawn from the university were not included in the analysis; instead, their responses provided important anecdotal information regarding influential contextual factors.

Both LIFG students perceived having a high school with a college-going-culture, one student stated:

> My high school was helpful and had information about college, it was a college for all. Teachers would say if you know it's in yourself to go to college, then go. If you know it's not in yourself to go, then don't waste your time and money.

When asked about the type of postsecondary expectations held by high school staff, peers, and parents, their responses were different. For one, it depended on the teacher, "those that understood you, were supportive and talked about college. There were classes where the teacher didn't care and there was too much work, but the teacher didn't care to check, so students didn't do the work". This student also indicated having parents and peers with high postsecondary expectations; her parents wanted her to "complete high school and at least 2 years of college". The other student indicated that her high school staff, peers, and family held high postsecondary expectations.

When asked about supports for learning and supports needed, one student reported having supportive high school teachers and receiving career information from her high school, but would have wanted more help with time management skills. The second student indicated having a supportive family and participating in a college readiness program. However, she indicated needing a more challenging high school curriculum:

> I was mad at my high school, it did not prepare me for college. Senior year, I had easy classes because they just wanted us to finish, it was not challenging. My mother would even ask why I did not have homework and I would say that I can't do anything to change what my teachers do. After 2 weeks of college, I was mad. My high school did not provide what I needed. CIS was the only helpful class and it's the reason I went to college, otherwise I did not have any intense classes.

The two students who had withdrawn from the university indicated having a college-going-culture in high school and indicated having peers and parents with high postsecondary expectations. However, there were differences in high school staff expectations, supports for learning, and supports needed.

Research Question 4: What Valuable Recommendations do Students Provide for Educators, Prospective College Students, and Current College Students?

The final set of interview questions involved asking LIFG students to provide recommendations for educators, prospective students, and current college students on how to be more successful at the university. Similar to psychosocial and contextual factors, frequently reported themes are highlighted and are based on a decision point of 50% or higher of responses from each group. Least frequently reported themes are provided based on a decision point of 33.3% or less of responses provided by each group.

Educators. Based on the student recommendations for educators, three themes emerged: (1) provide opportunities for success, (2) understand students' background, and (3) motivate/engage (see Table 24). The responses of two declared major student were not included in one of the three themes. Due to his positive experiences with university faculty and staff, one student did not provide any recommendations. The second student indicated that educators should run college readiness programs in the high schools and at universities.

Approximately 38% of LIFG students expressed provide opportunities for success, indicating that educators need to make sure students understand the class material. Provide opportunities for success was mentioned by 44.4% of no major students, 30% of declared major students, and 40% of graduated students.

Another recommendation for educators was understand student's background and refers to understanding that some students come from low-income families and may often have difficult lives (27.6%). Some students underscored the importance of educators talking to struggling students and attempting to make academic and/or personal connections. Understand student's background was expressed by 22.2% of no major students, 30% of declared major students, and 30% of graduated students. This theme was the least frequent recommendation provided by no major students.

Similarly, motivate/engage was reported by 27.6% LIFG students and depicts the need for educators to motivate and engage students within the classroom setting. Several students expressed that educators should provide relevant and interesting material. Others highlighted the importance of engaging students by building relationships on an academic level, which can motivate them to work harder and learn more. Motivate/Engage was reported by 33.3% of no major students, 20% of declared major students, and 30% of graduated students. This theme was the least common recommendation provided by declared major students.

Table 24

Student Quotations on Recommendations for Educators Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Provide opportunities for success	38%	44.4%	30%	40%
		If professors are reasonable and kind, they can teach and put students in the best position to succeed.	Educators should not set students up to fail. I'm not saying give all As, but what's the point of having a class that students aren't able to pass?	Provide quick feedback. Sometimes we don't get our grades until the end. How are we going to change our performance or how we act?
		If the staff, teachers, and professors were more available, it would help kids be successful.	Professors should try and make sure students understand what they are saying. They explain things without making sure people understand.	Clear expectations. You are not doing them a favor when you pass them and don't deserve it. Otherwise, they will not succeed in the real world.
		They need to be more involved: ask questions, make sure your students understand what you are teaching, and what to do to go to college.	Provided opportunities for success, like in the class. I don't like teachers that make it difficult to do well, like in the science labs and classes.	Fill the needs of students. If you teach one style every time, everyone is not going to get it. Different ways of explaining or teaching, students will walk away with more knowledge.
		More information on resources; where to find tutors and help on things like papers.		Provide more individual attention.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Understand student's background	27.6%	22.2%	30%	30%
		It would be great if more professors had an understanding of who freshmen are, especially first-generation college students, because they do not have any support at home.	They should know where we are coming from, like if I am tired in class it's not because I am slacking; it's because I am tired from working late at night to have money.	Need to be there, even if they don't care, act like they care. Because just knowing where students are coming from in terms of issues going on at home can affect their work.
		Maybe by talking to those who don't understand and letting them know that you are there because they are too shy to ask for help. Maybe their parents aren't as supportive. If they get a bad grade. It doesn't mean that they are dumb.	Professors need to know that not all students come to college with a lot of money and parents that have gone to college. If they know this, I think they could be more supportive.	Need to connect, not just on an academic level, but also personal. My advisor provided emotional and personal support; it makes the experience better, pushes you to work harder. More students could be successful.
			They need to know that not everyone in their class is the same – different backgrounds.	They need to talk to students more because some of us don't have it as easy as others.
Motivate and engage	27.6%	33.3%	20%	30%
		More interaction between professors and students, I know it's hard but more attention would be helpful for those students who are not extraverted.	Be more engaging, figure out ways to elaborate, avoid dead lectures, structure assignments better, instead of making the grade 3 midterms and a final.	Education is all about the relevance of it. Make things more interesting and then students will be more engaged and willing to do their best.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		Teachers need to engage their students in class. I had some high school teachers that did and some that didn't. My peers did better in the classes where teachers cared.	I have read in my education class that teachers need to motivate their students and so I think professors should do the same as well. Find ways to make the topic engaging to students.	Letting students know that you are available, even if its staying after class a few minutes instead of packing up your stuff right away. Just an interest in whatever to engage the student.
		Teachers need to make sure that students understand what they are teaching and to make sure it is interesting.		My favorite college professors were really engaging, like their personality and just how they were able to present the material. They understood and brought up topics from other areas to tie it into the specific course. Real world experiences are what I value.

Note. Some student responses fit into more than one theme; they were categorized into one of the themes based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses.

Prospective college students. With respect to recommendations for high school students thinking about college, four themes emerged: (1) find resources for LIFG students, (2) time management skills, (3) life is not easy – so work hard, and (4) college is worth it (see Table 25). The responses of five students were not included within one of the four themes. Three students, one from each group, could not think of any recommendations. The remaining two students were from the graduated group; one suggested shadowing current college students and the other recommended saving money for college.

Find resources for LIFG students was recommended by 24.1% of LIFG students. Many encouraged prospective students to search for scholarships and financial aid specifically for LIFG students. Find resources for LIFG students was mentioned by 22.2% of no major students, 30% of declared major students, and 20% of graduated students.

Similarly, 24.1% of LIFG students recommended that prospective students learn or exhibit time management skills. This recommendation included learning how to manage time in order to avoid procrastination when attempting academic tasks. Time management skills was provided by 33.3% of no major students, 30% of declared major students, and 10% of graduated students.

A third recommendation that emerged was life is not easy – so work hard (17.2%). Despite the struggles of coming from a low-SES environment, LIFG students stressed the need for prospective students to work hard. Some students discussed that many prospective students will have to work harder than others due to limited academic skills. Life is not easy – so work hard was expressed by 30% of graduated students and

the least common recommendation from no major (11.1%) and declared major (10%) students.

The fourth recommendation, college is worth it, was expressed by 17.2% of LIFG students. Students discussed the importance for prospective students to attend college because of the benefits. Moreover, students stated that college is not as challenging as prospective students may think or that it is worth an attempt. College is worth it was expressed by 22.2% of no major students, 20% of declared major students, and 10% of graduated students.

Table 25

Student Quotations on Recommendations for Prospective College Students Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Find resources for LIFG	24.1%	22.2%	30%	20%
		Apply early, even if you think you're not going to get in; apply. I applied to 10, all fees were waived due to income.	Have an idea of where you want to go, what to expect, go to a small college that will support TRiO students.	Use your resources. There is a lot of help for us. One, we are not familiar with it and two, we are afraid to ask for help.
		Look for resources for students like us that do not have much support at home. There is so much – I am glad that my advisor told me about them.	There are a lot of scholarships for citizens and undocumented students. They need to know the importance of having a B.A.	Apply for all the scholarships you can think of. Just apply, then you don't have to worry about finance while you're here; it takes off a bit of stress.
			I didn't know about money that is out there for minorities and poor students – look for them!	
Time-management skills	24.1%	33.3%	30%	10%
		Give it your all; don't slack off. College is overwhelming. Balance your time.	It took awhile, but I figured how to manage my time; there are many things to keep track of, especially during finals.	Be as proactive as you can. The more proactive, the more likely you will manage your time better and find success.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
		Apply early, don't feel overwhelmed and nervous. Try to make time, use your time wisely, study. Learn how to manage your time; planning is a big, work hard.	Learn how to plan ahead and manage your time; that will help you succeed. Learn how to manage your time.	
Life is not easy – so work hard	17.2%	11.1%	10%	30%
		Coming from a difficult home, it's important that you work hard; things will not be handed to you, you need to work at it.	Life is not easy, so you need to work hard. Work hard in high school so that you can come to college and work hard again.	Know the type of college curriculum; you will have to work hard. Be prepared for challenges. Have fun. Go. I want them to understand that anything is possible. You can do it if you want to and if dedicated. No barriers should keep you from doing what you want, as long as you work hard, as long as you believe in yourself. You can and you should. Change the cycle, change the stereotype; work towards a better life. Use critical thinking skills. You get to apply these in college. Do

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
				well in high school and learn as much as you can.
College is worth it	17.2%	22.2%	20%	10%
		College is worth it, go for it. It does not seem like it's a big deal, but once you get here, it is so different than high school. You get more independent.	It is very difficult being successful without an education. Most people need to get that education in order to appreciate things more.	It may look scary in high school, especially if your parents don't know about it, but just try it; it's important that you go.
		Do not over think it, because that is definitely something that I did. It's not as hard as what you think it is, if you do your work.	If you go to college and fail at it, at least you can say that you tried. Try to be productive in your life and it won't hurt you.	

Note. Some student responses fit into more than one theme; they were categorized into one of the theme based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses.

Current college students. Students were also asked to provide recommendations for current college students and three themes emerged: (1) work hard – college will not be easy, (2) time management/organizational skills, and (3) major in area of interest (see Table 26). The responses of five students were not included in one of the three themes. From the no major group, one student was unsure of what to recommend and the other stressed the importance of learning about new cultures. A declared major student stated participating in student groups, one graduated student suggested finding a mentor in college and the other articulated "perfecting social skills".

Similar to recommendations for prospective students, work hard – college will not be easy was mentioned by 37.9% of LIFG students for current college students. Because college will be challenging, students emphasized needing to work harder than other students. Work hard – college will not be easy was expressed by 33.3% of no major students, 30% of declared major students, and 50% of graduated students. This was the least common recommendation provided by no major students.

Also similar to previous recommendations, 31% of LIFG students stressed the importance for current college students to acquire time management and organizational skills, which includes learning how to manage time wisely to avoid procrastination. Time management skills was mentioned by 44.4% of no major students and 40% of declared major students, and was the most frequent recommendation given by graduated students (10%).

A third recommendation was major in area of interest in order to be academically successful (13.7%). Students recommended choosing a major of interest rather than one based on making money or suggested by parents. Major in an area of interest was

expressed by 20% of both declared major and graduated students. This recommendation was the least commonly expressed by declared major students and was not provided by no major students.

Table 26

Student Quotations on Recommendations for Current College Students Factor by Theme

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
Work hard – college will not be easy	37.9%	33.3%	30%	50%
		You will need to work hard – college will not be easy. It has been hard so far, but I'm trying.	Don't expect everything to be easy. Be aware that college is different than high school.	Don't lose sight of where you want to go; be motivated. It's so easy to fall into the crowd and disappear. Keep truckin along until the end.
		Don't be fixated on the college experience seen in movies. It's dumb when all people do is look for the frat parties. Have fun, but it's important to get your education. Don't spend your parents' money.	Even though you might not have support at home, look for it here. If you just sit around, no one is going to help you. It's all on you.	Think about where you came from and where you want to go. Cushy background or not, if you know you have a chance; just go. Work hard; before you know it college will be a little memory. Just push through it.
		Take advantage of this opportunity; I've seen people fail in their first year. It's not going to be a piece of cake.	College has not been easy. It's very hard; push through it and do not give up.	Take advantage of office hours. You learn so much from professors even if you don't have anything in common.
				Follow directions – college is hard.

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
				A college education is so much more than a degree, so work hard at it.
Time management/ organizational skills	31%	44.4%	40%	10%
		Procrastination is not the way to go. My friends like to party on the weekends, when they have math in the morning. Probably not a good idea; stay focused.	Have time management skills. Take advantage of resources, they will help you perform better, writing center, tutoring. Find something.	Learn how to manage your time wisely. Do not leave things for the last minute – so important.
		Don't procrastinate, that's the basic advice that helps the most.	Be organized. Otherwise, college won't work for you.	
		Organize. Make sure you have a planner and know what's due and your priorities.	Do not procrastinate!	
		Be organized. Make sure you have good time management skills. Because I have seen many of my peers just go out drinking at night, I am like really, you need to get stuff done.	Make sure, if you don't have them already, to have the skills to be organized and manage your time.	
Major in an area of interest	13.7%		20%	20%

Theme	Total % of Students	Representative Quotations		
		No Major (n = 9)	Declared Major (n = 10)	Graduated (n = 10)
			Make sure you are doing what you have an interest in doing. So many people get too caught up in being a doctor or lawyer, but when it really comes down to it, they really don't have any interest in the field.	Figure what you want to do early on, look at career choices after college. Like, you can't really do a lot with a psych degree. Really consider grad school because the world is changing, a bachelors degree isn't what it used to be anymore.
			It was hard to figure out a major, because my parents wanted me to be a doctor and I did not do so well in science classes here, which affected my GPA. I am happy now with my major in FSOS.	Have a passion for learning, do what you like to do; not just for money.

Note. Some student responses fit into more than one theme; they were categorized into the theme based on the main reason stated. Percentages were taken from the total amount of students in the sample and per group; they were not based on the amount of responses. FSOS = Family Social Science.

Anecdotal recommendations from withdrew students. Students who had withdrawn from the university were also asked to provide recommendations for educators, prospective college students and current college students. With respect to educators, one student highlighted the importance of a challenging high school curriculum that motivates students to learn and attend college:

> In high school, even if students complain it's too hard, make the course hard. Provide help after school, homework help. The grading systems needs to change. Do something to have students want to study more, otherwise students don't want to learn. Need something to make students want to learn, go to college, and have a good future.

The second student recommended that educators encourage students to have a future orientation and to prepare high school students who are not in advanced classes, suggesting "force people to think about the future. Students that were not in IB classes did not know how to do things and students gave up".

The two withdrawn students also provided recommendations for prospective college students. The first student emphasized the importance of taking classes to acquire college knowledge. The second student stated that "life is not as easy as you think, you will face hard times. Never try to take the easy way out; eventually, it can go bad and you will get stuck". Furthermore, neither student felt qualified to provide recommendations for current college students.

Summary

The purpose of this paper was to identify similarities and differences among LIFG students who had not declared a major, declared a major and graduated from the university regarding indicators of academic, psychosocial, and contextual factors that shaped their persistence. Results from the ANOVA resulted in non-significant

differences among LIFG students' high school preparation. Though, significant differences were seen for high school performance, high school ability, and college performance.

Follow-up analysis revealed that the no major group had lower college performance than the graduated group and lower high school ability than the declared major group. It was interesting that instead of graduated students, declared major students held the highest high school ability. The graduated group had the highest college performance; however, despite having the highest high school performance, it was only significantly higher than the declared major group. Furthermore, high school and college performance were not significantly different between the no major and declared major groups, and high school performance and ability was not significantly different between the graduated and no major groups. Although academic factors have been identified to be strong predictors of postsecondary success, variability was apparent across these students who persisted.

Throughout the interviews, low academic self-efficacy and lack of college knowledge were common perceptions held by LIFG students, yet, the majority also believed that their ability was a malleable entity. Also, the importance for faculty to understand their culture and background appeared to be of great significance for LIFG students in this study. In order to be at the same academic level as their higher income peers, many stressed the importance of needing to put forth more time and effort on their academic work.

Evident from the qualitative analysis, frequent and less frequent influential factors emerged, which were based on a decision point of 50% or higher (see Table 27). With

respect to psychosocial factors, the majority of students in each group held high academic expectations; were committed to college because of career/degree goals; met with university staff when solving academic problems; and believed that ability could change with effort. In addition, using the decision point of 33.3% or less, minimum/moderate worker as the type of academic discipline and writing center as the method used to problem-solve were the least frequent psychosocial themes. Even though the criterion was not met, it was interesting to find that the majority of LIFG students did not indicate having future orientations, rather there was much variation across past, present, and future orientations. Influential contextual factors included high postsecondary expectations held by both high school staff and parents. "Depended on the class", which refers to peers' postsecondary expectations varying based on the type of high school class, was the least common theme for each group.

When looking at commonalities between groups and following the same criterion, no major and declared major students had the most in common. The majority of these students felt connected to the university with similar high school experiences, described having a "college for all" high school environment that included peers with high postsecondary expectations, and rarely indicated having staff with low expectations. Moreover, life is not easy – so work hard was the least frequent recommendation given by both groups, whereas half of the graduated students stressed that college students need to work hard – college will not be easy.

The declared major and graduated groups had a few themes in common, such as the acquisition of problem-solving skills from high school advanced courses or college readiness programs and least frequently reported having past and future orientations that

both helped and hindered their time at the university. For the no major and graduated groups, both perceived to have low academic self-efficacy (lacked academic skills), yet, described themselves as having strong academic discipline (strong work ethic).

Unique themes between groups that were derived from discrepancies of 40% or more between groups were also found. Based on this criterion, unique themes were not found for no major students. However, it was interesting to find that all of the no major students felt connected to faculty, staff and peers, despite being new to the university. Also, many expressed the importance of socializing with peers and joining student groups. For declared major students, the majority perceived having strong academic skills, were all committed to college because of career/degree goals, and most held themselves to high academic expectations. With respect to graduated students, it was alarming to find that only one student described having a college for all high school environment. Unfortunately, 50% of graduated students indicated that college information was provided for students who were interested and 40% for students in advanced courses or college readiness programs.

In response to these findings, the following chapter will further discuss the similarities and differences that emerged in terms of how they relate to theory and the literature. Stemming from the discussion are limitations and merits, as well as implications for research, training, practice, and policy.

Table 27

Frequent and Less Frequent Themes by Student Group

	No Major		Declared Major		Graduated	
Theme	MF	LF	MF	LF	MF	LF
Psychosocial Factors						
Academic discipline	Strong work ethic	Minimum/ Moderate		Minimum/ Moderate	Strong work ethic	Minimum/ Moderate
Academic self-efficacy	Lacked academic skills	Strong academic skills	Strong academic skills	Lacked academic skills	Lacked academic skills	Strong academic skills
Academic expectations	High expectations		High expectations	Moderate expectations	High expectations	
Social connectedness	Connected – similar to high school	Connected – different than high school	Connected – similar to high school			Not connected – similar to high school
Commitment to college	Career/Degree goal	Paying for college	Career/Degree goal		Career/Degree goal	First one to graduate
Problem-solving skills	Meeting with university staff	Writing center	Meeting with university staff	Writing center	Meeting with university staff	Writing center
Acquisition of problem-solving skills		High school advanced course/program	High school advanced course/program		High school advanced course/program	
Time orientation				Past and future – both		Past and future – both
Conception of ability	Can change with effort		Can change with effort		Can change with effort	Cannot change

Theme	No Major		Declared Major		Graduated	
	MF	LF	MF	LF	MF	LF
Contextual factors						
College going culture	College for all		College for all		For students interested	College for all
High school staff postsecondary expectations	High staff expectations	Low staff expectations	High staff expectations	Low staff expectations	High staff expectations	Depended on teacher/class
High school peer postsecondary expectations	High peer expectations	Depended on class	High peer expectations	Depended on class		Depended on class
Parental postsecondary expectations	High parental expectations		High parental expectations	Moderate parental expectations	High parental expectations	Low parental expectations
Recommendations						
Educators		Understand students' background		Motivate/Engage		
Prospective students		Life is not easy – so work hard		Life is not easy – so work hard		
Current college students		Work hard – college will not be easy		Major in an area of interest	Work hard – college will not be easy	Time management skills

Note. Frequently reported themes are based on a decision point of 50% or higher and least frequently reported themes were based on 33.3% or less. Some themes were left blank because the criterion was not met. Supports for students learning were not included because each student provided several responses; therefore, percentages were not calculated. MF = most frequent; LF = least frequent

Chapter 5

Discussion

Access to a quality education is a critical component for closing the economic and social achievement gap. Despite recent positive trends in high school graduation and postsecondary enrollment rates, the attainment rates of postsecondary degrees are unacceptably low. Although research has demonstrated influential factors that positively shape the student persistence experience, there seems to be limited qualitative data on low-income and first-generation (LIFG) students' persistence and the contexts in which they are making decisions about postsecondary education. The purpose of this study was to explore similarities and differences among LIFG students' academic, psychosocial, and contextual factors that shaped their persistence at different stages during their postsecondary experiences. Also, LIFG students were asked to provide recommendations for educators, prospective college students, and current college students. Student voice is critical and may add to our understanding of why some students persist despite common barriers and challenges.

Summary of Findings

The research literature shows that multiple forces interact in many settings to influence learning and student persistence (Astin, 1993; Bean & Metzner, 1985; Pascarella et al., 2011; Reason, 2009; Tinto, 1993, 2006-2007). The conceptual model in Chapter 2 (see Figure 1) illustrates this interaction as it relates to the factors influencing student persistence. As depicted in the model, students enter postsecondary education with sociodemographic, academic, psychosocial, and contextual characteristics and

experiences that shape their path as they navigate and interact with institutional and peer environments, as well as with their own experiences (Reason, 2009).

Qualitative and quantitative analyses were conducted to explore similarities and differences among LIFG students from the no major (first-year students without a major), declared major (students who had declared majors), and graduated (students who had graduated from the university) groups. Evident from the interviews, as LIFG students entered the university, their pre-postsecondary characteristics, experiences, and the interplay among academic, psychosocial, and contextual factors affected and shaped their persistence. The importance for faculty to understand students' background and culture, perceptions of low academic self-efficacy, and discussions of limited college knowledge permeated the student interviews. Despite these perceptions, LIFG students were willing to work hard, and often, invest more time and effort than their higher SES peers on academic tasks.

Similarities across the groups. It was evident throughout the interviews that no major, declared major, and graduated LIFG students had similar perceptions of influential academic, psychosocial, and contextual factors. Results from the ANOVA revealed non-significant differences in high school preparation (amount of high school advanced courses taken). This result could be interpreted in different ways. For instance, research has demonstrated that a strong academic preparation can help students overcome the adverse effects of growing up in low-SES environments (Adelman, 2006). For the LIFG students in the study, these courses could have influenced their persistence or had no significant impact.

There were also psychosocial factors that emerged with greater frequency in each group. A notable percentage of LIFG students held themselves to high expectations, met with university faculty and staff as a problem-solving method, and perceived intelligence or ability to be malleable (growth-mind-set; Blackwell et al., 2007). These findings are supported by previous research on the influence of academic expectations (Diemer & Li, 2011), problem-solving skills (Farrington et al., 2012), and students' conception of ability (Aronson et al., 2002; Blackwell et al., 2007); these factors can provide leverage for students to facilitate their persistence at postsecondary institutions. In addition, the majority of students from each group were committed to college because of their motivation to attain career and/or degree goals. This lends support to past research which has demonstrated the effectiveness of students having the determination to persist and graduate (performance goals) and the understanding of the positive consequences of bachelor's degrees (outcome expectations; (Harackiewicz et al., 2002; Khan & Nauta, 2001).

There were also some commonalities seen with regards to contextual factors across the three groups. In particular, high school staff provided students with college knowledge, which included guidance with the postsecondary application and financial aid process. High postsecondary expectations from high school staff and college knowledge have been referred as components of a college-going-culture (Conley, 2009) and have made the most difference in postsecondary enrollment patterns for low-SES students (Roderick et al., 2011). Similarly, most LIFG students reported growing up with parents who held them to high postsecondary expectations, which supports research regarding the strong impact of parental expectations on the student persistence experience (Diemer &

Li, 2011). However, this finding was inconsistent with research that suggests parental involvement as less influential for first-generation than non-first-generation student persistence (McCarron & Inkelas, 2006).

Similarities between groups. Similar academic, psychosocial, and contextual factors were also found between groups. In particular, the no major and the declared major group had the most in common. These students mainly perceived to be connected to the university, expressed connections with faculty, staff, and peers, and had similar positive connections in high school. These findings support research that suggests having a sense of belonging in an academic setting can influence students' academic performance (Braxton et al., 2008; Schreiner et al., 2011). Moreover, adding to research on the positive effects of involvement in extracurricular activities for first-generation students (Pascarella et al., 2004), LIFG students in this study attributed their feelings of connectedness to their participation in student groups, campus activities, and university sport teams.

With regard to contextual factors, the majority of no major and declared major students perceived their high schools as having a college for all environment that included peers with high postsecondary expectations. In addition to the effectiveness of a college-going-culture (Conley, 2009), this finding lends support to previous research on the significant degree of influence that peers provide regarding thinking about, applying to, and attending postsecondary education (Holland, 2011).

The acquisition of problem-solving skills from high school advanced courses/college readiness programs was the only common theme between declared major and graduated students. The students' acquisition of effective learning strategies, such as

problem-solving skills, may be another important element in student persistence, a finding supported by previous research (Farrington et al., 2012).

A surprising finding between the no major and the graduated group was their perceptions of low academic self-efficacy while simultaneously indicating strong academic discipline.

Different from previous research that has found high academic self-efficacy to be a strong predictor of persistence (Robbins et al., 2004), students in these two groups perceived having limited college-level skills. In fact, across the sample, students clearly blamed their high schools for not preparing them for college. This adds to the current understanding of the misalignment between high school preparation and college knowledge needed to succeed, and often, students are misled to believe they are college ready (Kirst et al., 2004; Venezia et al., 2005). Nevertheless, these students recognized the importance of having a strong work ethic, which was in accordance with previous research on the effects of academic discipline on persistence (Robbins et al., 2006; Lleras, 2008).

Unique to each group. Although there were academic, psychosocial, and contextual characteristics and attributes that LIFG students had in common, some factors were unique to each group. Most first-year LIFG students have to figure how to navigate the postsecondary environment on their own with little help from families who lack sufficient college knowledge (Bloom, 2007; Jenangir, 2010). It was surprising and encouraging to find that all no major students felt connected to the university, considering the large size of the university and previous research on the negative impact of attending large universities with higher proportions of high-SES students on LIFG students

(Oseguera, 2005-2006). However, these findings supplement research on the significant impact that social integration can have on persistence (Braxton et al., 2008).

The students who had declared majors were at a different stage than no major students; they had persisted past the first year of postsecondary. In accordance with past research on the degree of accuracy of well-developed high-stakes tests in predicting postsecondary success (Pike & Saupe, 2002; Robbins et al., 2004; Sackett et al., 2001), declared major students held the highest ACT scores. Moreover, they were the only group that mainly perceived having high academic self-efficacy, which is a significant attribute and predictor of persistence (Robbins et al., 2004). Although these were common themes across the groups, 100% of declared major students were committed to college due to career/degree goals, whereas half of students held this expectation from the no major and graduated groups. Similarly, only one declared major student held moderate expectations, the rest held high academic expectations, while there were several no major and graduated students that held low to moderate academic expectations. Overall, the declared major group seemed to exude more academic confidence than the other two groups.

Obviously, the graduated group represented students who had truly persisted; they had attained bachelor's degrees. In accordance with past research on the predictive capability of college GPA on persistence (Burgette & Magun-Jackson, 2008-2009), these students held the highest college GPA from the three student groups. However, they did not hold the highest ACT scores or high school GPA. These findings may lend support to research that has demonstrated SES to be significantly related to standardized achievement test scores (Sackett et al., 2009) and variation in high school grading

standards as misrepresentations of students true academic performance (Bassiri & Schulz, 2003; Zwick & Greif Green, 2007). Perceptions of a college-going-culture was another unique factor. It was alarming to find that only one graduated student described attending a high school with a college-going-culture; the majority indicated that college information was mainly provided to those who were actively searching for information. Despite the lack of college knowledge and college-going-cultures, these students overcame barriers that many LIFG students face – they were resilient. The most common recommendation for current college students was fitting; about half stressed the importance for students to work hard because college will not be easy.

In sum, the majority of LIFG students attended advanced high school courses, held high academic expectations, were committed to college due to career/degree goals, believed ability could change with effort, and used problem-solving skills. Also, students in this study perceived being held to high postsecondary expectations by both high school staff and parents. These psychosocial and contextual factors were in alignment with past research on persistence. The no major and declared major students had the most in common, yet the declared major group seemed to be the most confident. The majority of graduated students stressed the importance of investing more time and effort on academic tasks because college and life will not be easy. Moreover, throughout the interviews, students stressed the importance for faculty to understand their background and culture, perceived having low academic self-efficacy, and discussed having limited college knowledge. As an example, one no major student stated:

> Someone who is first-generation or someone who does not have support at home is expecting their teachers to be their role models, to be there for them, to

> encourage them. And when a teacher tells you 'you cannot do it', you are like, ok, I can't, I give up.

These LIFG students articulated the need for faculty to understand that they have difficult lives and are longing for guidance and individuals who will positively shape their university experiences because they are willing to put forth the time and effort.

Limitations and Merits

There were several limitations to this study that should be addressed. First, LIFG students in this study were included in the sample as determined by a university database. Therefore, some students may have had older siblings who had already experienced postsecondary education and provided cultural and social capital to their younger siblings. Some caution must also be used when interpreting the quantitative results due to the small sample size of the groups that might have compromised the results. Also, as with any study, there are important limitations to the generalizability of the findings that should be noted. As previously stated, any findings from this study may be limited to the experiences of TRiO students at this particular university and results may vary from other postsecondary institutions.

In addition, not all individuals could have been equally articulate and perceptive to influential factors in their postsecondary persistence. Students were made aware that their responses were anonymous. Nonetheless, my presence may have led to bias responses, considering that the students knew I was associated with TRiO; perhaps some felt the need to provide certain responses. Moreover, when interpreting the data, I could have posed a bias regarding the positive influence of TRiO due to my association with TRiO programs. Last, even though several attempts and methods were carried out, this

study may have benefited from the inclusion of a fourth group of LIFG students who had withdrawn from the university after their first semester for comparative purposes as well as information regarding barriers and challenges.

Despite these limitations, this study contributed to the field by using a semi-structured interview approach developed through a review of the literature to explore academic, psychosocial, and contextual factors. In particular, qualitative and quantitative data were analyzed in an attempt to understand similarities and differences among LIFG students who persisted at the university that were from the no major, declared major, and graduated groups. Also, this study provided information gathered from a qualitative method through which LIFG students expressed their perceptions of influential factors and provided recommendations to others, which has been the focus of little research. Across the sample, this study also highlighted perceptions of the importance for faculty to understand students' background, low academic self-efficacy, and limited college knowledge. Last, this research has attempted to broaden the understanding of what shapes LIFG student persistence by exploring what was perceived as influential, such as academic expectations, commitment to college, academic discipline, problem-solving skills, conception of ability, and high staff and parental expectations, in light of adversity.

Implications for Research, Training, Practice, and Policy

Given that researchers, educators, professionals, and policy makers cannot change LIFG students' environments, researchers can focus on alterable variables, such as those that emerged from this study. At the basis of training, practice, and policy is research. In this sample, diverse groups of LIFG students at different stages of their postsecondary experiences were interviewed, leaving room for the exploration of additional influential

factors. It is important for future research to implement longitudinal studies that follow LIFG students and explore what may be influential overtime.

As mentioned earlier in Chapter 3, recruitment and random selection of LIFG students was challenging, particularly recruiting and interviewing students who had immediately withdrawn from the university. Nevertheless, future research should consider this group of students in order to gain more insight into barriers and challenges to persistence. For example, future research should continue to concentrate on the implementation of well-designed studies on college readiness programs to decrease LIFG students withdrawing from postsecondary institutions and should include two or more similar programs as comparisons. For some, advanced high school courses or college readiness programs were the main, if not the only, source of postsecondary information. Considering the variations of influential factors that were found, when developing college readiness programs, researchers needs to address the influence of multiple concurrent factors to accommodate individual differences.

Certainly, negative experiences have lasting effects on students' persistence, which many LIFG students shared with me. As a result, understanding students' background was underscored by several students and many valued meeting with university staff when faced with academic problems. An important implication for the training of professionals is the recognition that connecting with students, especially those from low-SES environments, makes a difference in their ability to persist (Schreiner et al., 2011).

This study also provided several implications for practice. In this sample, the majority of LIFG students shared perceptions of influential factors, despite feeling

underprepared for postsecondary education. School personnel should recognize that some, if not most, LIFG students may lack the college knowledge needed to transition to the postsecondary environment. Schools need to take the lead in providing college knowledge in high school, if not middle school, to students and, more importantly, to parents. Also, considering that virtually all of the LIFG students held high academic expectations and expressed beliefs that ability could change with effort, imbedded in the high school curriculum needs to be the development of academic goals and the shaping of students' conception of ability (Blackwell et al., 2007; Dweck, 2007).

Several LIFG students in this study indicated having difficult transitions to the university; therefore, university administrators should consider developing and/or implementing evidence-based programs the summer prior to LIFG students entering postsecondary institutions for exposure to the academic culture they are about to enter (Vaquera & Maestras, 2008-2009). Postsecondary administrators, faculty, and staff need to understand that many LIFG students lack social and cultural capital.

Due to the variability in academic performance and ability seen among the three groups, admissions and state policies as they relate to access to postsecondary education should take into consideration that ACT scores and high school GPA may not provide an accurate measure of LIFG students' academic performance. Rather, students' SES, psychosocial, and contextual factors need to be considered when predicting persistence in addition to academic factors (Pascarella & Terenzini, 2005; Reason, 2009; Robbins et al., 2004, 2006).

Thus, the major implication for researchers, educators, professionals, and policy makers is that LIFG students come to postsecondary education with different

characteristics and attributes that shape their experiences in various ways. In other words, these students may have diverse needs compared to the general student population, as well as with each other. Therefore, how can we as professionals level the playing field for students from low-SES environments in order to increase their rates of upward social mobility? Asking them what was influential in their persistence was a step in the right direction.

Conclusion

Although a high school diploma is important, it may not be sufficient anymore. In order for students to follow paths that lead to potential long-term careers, a postsecondary education is now critical. The alternative may lead to individuals struggling to secure adequate wages. However, LIFG students lack equitable access to and degrees attained from postsecondary institutions. Despite this knowledge, research findings have been limited due to the ambiguity in sample demographic characteristics; some researchers either group students by race/ethnicity or disregard controlling for SES. Furthermore, there seems to be limited qualitative data on the LIFG student population with respect to understanding persistence towards postsecondary degrees. This study included LIFG student voices with the intent of determining perceived influential factors that contributed to their persistence.

These students had stories to tell. In this study, the majority of LIFG students were enrolled in advanced high school courses, held high academic expectations, were committed to college because of a motivation to attain career/degree goals, believed ability could change with effort, and used problem-solving skills when confronted with academic problems. Also, the majority of students perceived to have high parental and

high school staff postsecondary expectations. The importance of understanding students' background and culture, perceptions of low academic self-efficacy, and discussions regarding the lack of college knowledge permeated throughout the student responses. Regardless of these perceptions, LIFG students described their willingness to work hard, and often, invest more time and effort than their higher SES peers. One student from the graduated group offered this insight into the kind of mentality it takes to persist when asked to provide a recommendation for prospective LIFG college students, she stated:

> Go. I want them to understand that anything is possible. You can do it if you want to and if dedicated. No barriers should keep you from doing what you want, as long as you work hard, as long as you believe in yourself, you can and you should. Change the cycle, change the stereotype, work towards a better life.

As researchers, trainers, practitioners, and policy makers continue to work with and make decisions that will significantly affect the lives of LIFG students, careful attention needs to be placed on these critical factors that shape students' attainment of postsecondary degrees – this is their ticket out of poverty.

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Appendix A

Invitation to Participate

You are invited to be in a research study to learn more about why and how students persist from high school to college. As a past TRIO student, I am very passionate about this topic. The benefits of participation are learning about factors that helped and/or hindered your persistence in college. There are no risks to the study and you are able to withdraw from the study at any time. You will have the option to communicate via Skype or to set up a phone interview. The interview will take approximately 45 minutes to one hour. If you decide to participate, you will be entered in a raffle to win a twenty-five dollar gift card to Target; there will be four opportunities to win. Your information will be very valuable in order to help students in the future persist from high school to college and eventually graduate. Please email me at ganuz001@umn.edu to set up an interview and receive more information. I look forward to your input.

Thank you,

Zoila Ganuza

Appendix B

Student Interview Questions

Thank you for your willingness to participate and be interviewed. What I know about you is that you have (withdrawn, finished your first year, declared a major, graduated) from/at the University. The reason for this interview is to learn about your thoughts, feelings, beliefs, and behaviors pertaining to college readiness and success. I am very interested in your story!

1. Let's first talk about reasons why students attend college. For example, some students have specific career/academic goals, or their parent/guardian made them, or their friends were going, or they had nothing else to do, or other reasons.

What are some reasons you decided to attend college?

a. If no example provided: Talk more about a situation or experiences you had related to reasons for going to college.

2. I would now like to talk about your academic experiences. For most of the following questions, I will first ask you to rate your answer on a scale, just how you would at the doctor's office when asked about the level of pain you are feeling. *Then, I will ask you to further explain your rating.*

a. Let's talk about what it means to you to be a responsible student. Some students believe they are either a hard, moderate, or minimal worker. On a scale of 1 to 5, 1 meaning minimal and 5 meaning hard worker, can you rate for me what type of a worker you are?

i. You gave yourself a (1-5), talk more about the type of worker you identified. What does a (1-5) mean?

b. Continuing on the topic of your academic experiences, let's talk about how you think you perform on assignments, tests and papers. On a scale of 1 to 5, 1 meaning not successful and 5 meaning very successful, rate your *overall* performance.

   i. You gave yourself a (1-5), tell me more about a situation or experiences you had related to your past performance on assignments, tests and papers.

   ii. Let's think now about what academic expectations you hold or have held at the University of Minnesota.

      1. In what way did you meet them?
      2. What do they mean to you?

c. Now let's talk about your experiences connecting with others. Rate your current or past experience at this university. I would like you to first think about peers. How connected do/did you feel with your peers? For this rating, 1 means you do/did not feel connected with your peers and 5 means you do/did feel connected with your peers.

   i. You gave yourself a (1-5), talk more about a situation or experiences you had related to your connection with peers. Why does/did this connection work? Or why did/does it not work?

   ii. Please rate your connection with faculty members at the University of Minnesota.

1. You gave yourself a (1-5), talk more about a situation or experiences you have had related to your connection with faculty members. Why does/did this connection work? Or why did/does it not work?

iii. Please rate how connected you feel or have felt with staff at the University of Minnesota. For this rating, 1 means you do/did not feel very connected and 5 means you do/ did feel very connected with university staff.

1. You gave yourself a (1-5), talk more about a situation or experiences you have had related to your connection with university staff? Why does/did this connection work? Or why did/does it not work?

iv. In what way is your connection with others similar or different from high school?

1. If not enough information provided: Talk more about a situation or experiences you had related to how similar or different your connection with peers, teachers or staff was in high school.

v. On a scale of 1 to 5, please describe your current/past involvement in extracurricular activities in college. 1 means not involved and 5 means very involved.

1. You gave yourself a (1-5), talk more about a situation or experiences you had related to extracurricular activities.

vi. In what way is your involvement in extracurricular activities similar or different from high school?

1. If not enough information provided: Talk more about a situation or experiences you had related to extracurricular activities in high school.

d. Continuing to think about your sense of connection with college, on a scale of 1 to 5, 1 meaning not committed and 5 meaning very committed, (for "second year, "declared major" groups) how committed do you see yourself in terms of graduating? (For "withdrew and "graduated" group) When you entered the University, how committed did you feel in terms of graduating?

i. You gave yourself a (1-5). Help me understand your response. How do you feel and think/what were you feeling and thinking about graduating?

ii. On a scale of 1 to 5, 1 meaning not helpful and 5 meaning very helpful, how will a college education help you reach your academic and/or career goals?

1. If not enough information provided ask: Tell me more on how you feel and think about a college education and its impact on reaching your academic and/or career goals.

e. When students are faced with an academic problem whether with a professor, on an assignment, or on a test they either find it difficult or easy to solve the problem. While you have been at/When you attended the University of

Minnesota, on a scale of 1 to 5, how well have you done when confronted with an academic problem?

i. You gave yourself a (1-5), talk more about a situation or experiences you had related to confronting an academic problem.
ii. Continuing to think about academics, on a scale of 1 to 5, 1 meaning not prepared and 5 meaning prepared, rate what best describes you.
iii. You gave yourself a (1-5), talk more about a situation or experiences you had related to how you prepare for a test.
iv. If no skills mentioned: What types of skills did you use? You mentioned (something about skills used on a test), how did you acquire those skills?

2b. Now we are going to shift the focus from your own thoughts, feelings, beliefs, and behaviors to some supports for your learning. They might be *where* your knowledge about college *came from*, expectations particular individuals had for you, etc. There can be many others too. Some high schools support students in terms of providing a lot of information about postsecondary options, while other schools leave it up to the student to gather information on postsecondary options. Tell me about your high school.

i. If no examples provided: talk more about a situation or experiences you had related to supports for your learning in high school.

ii. On a scale of 1 to 5, 1 meaning not available and 5 meaning very available, rate the availability of college information at your high school.

iii. Why do you think your school environment was that way?

1. How available was information on financial aid, scholarships, challenge level of college classes, and acceptance criteria?

2. Where did you receive that information?

3. Who provided that information for you?

b. Some students are held to high or low academic expectations by their high school teachers, other staff (i.e., counselors, advisors, tutors, etc.), family, and peers. On a scale of 1 to 5, 1 meaning very low and 5 meaning very high, please rate your perception of academic expectations that were held by those around you. I would like you to first rate the expectations held by your high school teachers.

i. You gave yourself a (1-5), talk more about a situation or experiences you have had related to the academic expectations held by your high school teachers.

ii. Please rate the expectations held by other high school staff members.

1.You gave yourself a (1-5), talk more about a situation or experiences you have had related to the academic expectations held by other high school staff.

iii. Please rate the academic expectations held by your family during high school.

1. You gave yourself a (1-5), talk more about a situation or experiences you have had related to the academic expectations held by your family.

iv. Lastly, please rate the academic expectations held by your high school peers.

1. You gave yourself a (1-5), talk more about a situation or experiences you have had related to the academic expectations held by your high school peers

3. Now let's talk about supports and resources that are helpful to students as they go from high school to college. Some examples of support may include but not limited to: tutors, resource centers, advisors, after school programs, teachers, faculty, counselors, friends, family, etc.

a. Which supports did you have in high school? College?

b. Please further explain how the support(s) were helpful in your transition from high school to college?

c. What supports did you need and want?

4. Students have different types of time orientations when it comes to their academic work. Let me describe to you the types of time orientations. Being past-oriented means focusing on or thinking about events that have occurred in the past, for example doing things the way they have always been done because that's just the way it is. In other words the past dictates the future. Being present-oriented

means focusing on the here and now and often times doing things last minute, and lastly being future-oriented means focusing on the future, always making plans for the future and/or ahead of time. Which type is most like you, past, present, or future?

a. You mentioned that you tend to me more (past, present, future) oriented. Tell me more about that. Think of a situation or experiences you had related to your time orientation.
    i. How has your time orientation helped or hindered your time in college?
b. Now let's talk about how you think the role of ability has influenced your time in college. Some students think that their ability cannot be changed, while others think their ability can change by putting in more effort. *For example, some student think that don't get science because it is something that you either get or not, while other think that they need to study more in order to understand the difficult topic.* What do you think?
    i. Talk more about a situation or experiences you had related to what you believe about ability with respect to your college performance.
    ii. Continuing to think about the role of ability on academic tasks, I am interested in learning more about your reasons why you do things and characteristics that explain your performance on academic work.
        1. Think about your performance on tests, grades, and papers. Have you ever been disappointed in your performance?

Explain. Which of the following reasons might explain your performance? Was is it due to lack of effort, did you not use or know about the appropriate strategies, was it bad luck, was it due to the difficulty of assignment, or was it due to other reasons?

a. Have you ever been happy with your performance? Explain. Which of the following reasons might explain your performance? Was it due to the effort you put in, was it due to the use of appropriate strategies, do you think it was luck, was it the difficulty of the assignment, or was it due to other reasons?

5. Given your experience, what should educators do to help students be more successful in college?

a. What would you tell high school students who are thinking about college?

b. What would you tell current college students?

Appendix C

Consent Information Sheet

A Continuum of Persistence

You are invited to be in a research study to learn more about why and how students persist from high school to college. You were selected as a possible participant because you attend or have attended the University of Minnesota and have participated in TRiO programs. I ask that you listen carefully and ask any questions you may have before agreeing to be in the study. This study is being conducted by: Zoila M. Ganuza, doctoral candidate in the Educational Psychology Department.

Background Information

The purpose of this study is to learn more about critical student attributions that helped their persistence from high school to college.

Procedures

If you agree to be in this study, the researcher would ask you to do the following things: answer questions about your high school and college experience. If you have access to a web camera, you will be asked to communicate via web; otherwise we will set up a phone call. There will be one interview and it will last approximately 45 minutes. Interviews will be recorded for accuracy purposes only. A summary of findings will be sent to the participants as well as the TRiO directors.

Risks and Benefits of being in the Study

The risks will not be different from any other risks that are experienced on a daily basis in the university environment. The benefit to your participation is the development of understanding critical personal attributes that helped/hindered your persistence in college.

Compensation

You will be entered in a raffle to win a $25.00 gift card to target. There will be four

drawings.

Confidentiality

The records of this study will be kept private. In any sort of report the researcher might publish, it will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researcher will have access to the

records. The researcher will be the only person to have access to recordings of interviews.

Voluntary Nature of the Study

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota or with TRiO programs. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions

The researcher conducting this study is: Zoila M. Ganuza. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact the researcher at ganuz001@umn.edu. If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, **you are encouraged** to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

You will be e-mailed a copy of this information to keep for your records.